
IN THE
United States Circuit Court of Appeals
FOR THE NINTH CIRCUIT.

No. 6996

OTIS ELEVATOR COMPANY,
Plaintiff, Appellant and Cross-Appellee,
vs.

PACIFIC FINANCE CORPORATION AND LLEWELLYN
IRON WORKS,
Defendants, Appellees and Cross-Appellants.

BRIEF FOR OTIS ELEVATOR COMPANY, PLAINTIFF, APPELLANT
AND CROSS-APPELLEE.

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PACIFIC FINANCE CORPORATION AND LLEWELLYN
IRON WORKS,
Defendants, Appellees and Cross-Appellants.

**BRIEF FOR PLAINTIFF OTIS ELEVATOR COMPANY
AS APPELLANT.**

STATEMENT.

This is a suit brought by the Otis Elevator Company against the Pacific Finance Corporation and Llewellyn Iron Works for the infringement of the Parker Reissue Patent No. 16,297, granted March 23, 1926, on a "*Control*" for electric elevators, and owned by plaintiff (Plaintiff's Exhibit 2, R. Vol. 2, 11*).

* As both parties are appealing, to avoid confusion, the parties will be referred to herein as in the lower court. This brief relates only to plaintiff's appeal.

Where "R." only is used, it refers to the Vol. 1 of the printed transcript. "R. Vol. 2 and 3," respectively, refers to the volumes of printed exhibits.

We have italicized certain of the quotations for emphasis.

Claims 3, 22, 29, 40, 41 and 65 of the patent in suit were each held valid by Special Master, David B. Head (R. 589-590) to whom the case was originally referred at the request of defendants (R. 33) and over plaintiff's protest (R. 35, 36-44). The Master also held all of these claims except 41, infringed. The Master heard and saw all of the witnesses. He examined plaintiff's "Signal Control" elevators installed in Los Angeles utilizing the Parker invention. He also examined defendants' elevators, charged to infringe, installed in the Pacific Finance Building, both during the progress of the hearing and while the cause was under submission (R. 552).

In the decree appealed from, the lower court, whose only contact with the merits of this case was on exceptions to the Master's report, likewise sustained the validity of each of these claims, but held that defendants had not infringed any of them (R. 646).

As both the Master and lower court held the claims of the Parker patent now before this Court valid, plaintiff-appellant is here appealing from that portion of the decree only which holds claims 3, 22, 29, 40, 41 and 65 not infringed.

Parker's inventive concept is directed to a "Control" for an electric elevator in which an attendant operator is stationed in the car, and in which the starting of the car is entirely under the control of the attendant whereas the stopping of the car at the landings is automatically attained by pushing buttons either in the car or at the landings. The "car switch" type of electric elevator, when harnessed with the Parker "Control," has resulted in an entirely new type known as the "Signal Control Elevator." The Parker invention is not concerned with mechanisms having to do with acceleration, deceleration, leveling, operation of the doors and other auxiliaries in use on electric elevators, pre-

vious to his invention, except that it is designed to be and is used in connection therewith.

At the time Parker made his invention electric elevators, operated by car attendants, were extensively used, and their equipment included electrically controlled means by which the car was automatically accelerated, decelerated and brought to an exact floor level, but in these *both the starting and stopping* of the car was controlled by the attendant throwing the "*car switch*" in the car to "*on*" and "*off*" position respectively.

In the old attendant operated "*car switch*" controlled electric elevators the *stopping* as well as the *starting* of the car being wholly within the control of the car operator, it frequently happened that cars ran by landings at which passengers desired to stop, and that the operator failed to stop for persons waiting at various floors to take the car, even though the latter had pushed buttons at landings which caused signals to be flashed in the car. This was due to such causes as the operator failing to remember the different floors called by the passengers as they entered the car, failing to observe signals in the car, or to the inattention or laziness of the operator. This frequent passing of floors by car operators had always caused much annoyance to the public. (R. 74, 75.)

Briefly stated, the Parker "*Control*" for attendant-operated, electric elevators comprises,

- (a) an electrical circuit controlled only by a car switch to start and run the car;
- (b) a holding circuit initiated by the operation of the car switch, which so maintains the running circuits that the car will continue to run independent of the car switch, and the operating handle of the car switch may be returned to "*off*" position after the car is started without stopping the car; and
- (c) secondary circuits provided with manual closing means (push buttons) located in the car and at each landing and automatic circuit closing means syn-

chronized with the movement of the car for initiating the slowing down and stopping of the car at the desired landing.

When any of the usual attendant operated electric elevator driving and operating mechanisms have been harnessed with the Parker "*Control*" the car can be started *only* by moving the car switch to "on" position and once started the car will continue to run, after the handle of this switch has been moved to "off" position (R. 101), until it is automatically stopped, at any floor, through electrically controlled means initiated by pushing buttons in the car, corresponding to the floors at which passengers desired to stop, or by pushing buttons at any landing where passengers are waiting to take the car.

Previous to the time Parker made his invention he had done no work on elevators. He had ridden in numerous elevators in different cities, such as New York, London, Detroit, and in his own country, New Zealand. He had observed and been frequently annoyed by car operators both passing the floor where he was waiting to take the car and carrying him by a floor which he had called when riding in the car. (R. 74, 75.)

His purpose, as shown by his patent (p. 1) and testimony (R. 74-76), was to correct these conditions and eliminate the human errors of the elevator attendants, which brought them about.

Parker by training and observation was versed in electrical subjects. He knew from his observations, as did most everyone, that the electrical circuits by which elevators were started, run and stopped were controlled solely by the operation of a car switch in the car, and that if the operator failed to throw his car switch to "off" position at the proper time before reaching a landing, he had to jockey the car back and forth to bring the car floor ap-

proximately level with the desired floor landing. (Patent, p. 1, lines 39-48.)

He also knew that some of these elevator constructions had automatic devices for bringing the car to an exact floor level, providing the operator threw his car switch off at the proper time, so that the car was decelerated and came to a stop within a range of one and a half or two feet on either side of the landing (R. 76, 108). He also realized that in modern buildings using high speed elevators, it was necessary to have a car attendant always present and definitely in charge of the car (R. 75).

When Parker made his invention he did not propose or suggest to make any substantial change in the various mechanisms by which cars were started, accelerated, run, decelerated, stopped, or even self-leveled.

His patent and testimony clearly show that he contemplated the continued use of these various mechanisms, but that they should be in subjection at all times to his patented "*Control*" for accomplishing his purpose, once they are harnessed by it.

While skilled elevator engineers had, of course, been very much more familiar with the various electrical mechanisms used for starting, accelerating, decelerating, stopping, and self-leveling operator-controlled elevators, and with push button elevators of various kinds (R. 563, 581-2), and with the inherent difficulties of operators failing to stop at floors called by passengers in the car or in response to the call of passengers waiting at the landings, than Parker, none of them had solved the problem of correcting and eliminating these difficulties.

It remained for Parker, a non-member of the elevator industry (R. 574), to provide a simple control for these highly complicated electric elevator mechanisms—

“whereby the starting of the car, either up or down in

the shaft, is entirely and singly within the manual control of the car operator, but whereby the stopping of the car at predetermined points in its ascent or descent may be automatically attained" (Patent, p. 1, lines 32-38).

This court in *Butler v. Burch Plow Co.*, 23 F. (2d) 15, 24, quotes from an earlier case apt here, as follows:

"The courts have frequently held that one who takes an old machine, and by a few even inconsequential changes compels it to perform a new function, and do important work which no one before dreamed it capable of performing, is entitled to rank as an inventor."

O'Rourke etc. Co. v. McMullen, 160 Fed. 933, 938.

See also

Bliss v. Spangler, 217 Fed. 394.

The grant of the Parker original and reissue patents is "prima facie evidence of both validity and utility" of his pioneer concept, (*Gandy v. Main Belting Co.*, 143 U. S. 587; *Lehnbeuter v. Holthaus*, 105 U. S. 94, 96; *Hildreth v. Mastoras*, 257 U. S. 27; *Eibel Co. v. Paper Co.*, 261 U. S. 45, 60; *Diamond Rubber Co. v. Consolidated Rubber Tire Co.*, 220 U. S. 428).

PARKER FULLY REALIZED THE DIFFICULTIES WITH PREVIOUS ELEVATORS AND THE SOLUTION OF THESE PROBLEMS WAS THE OBJECT AND PURPOSE OF HIS INVENTION.

Previous to his invention Parker had ridden in numerous electric elevators and had frequently observed conditions which rendered them unsatisfactory in use. Regarding such elevators he states (R. 74):

"Referring to the objections that were prevalent, the operator frequently went by the floor where you wished to stop, and you had to repeat the number and the operator came back. That caused delay. Also when waiting for a car at a floor landing after pressing a button, the cars went by and it was annoying to have to press the button again, and perhaps even see

a second car go by. * * * I realized the necessity of high speed elevators, of having someone definitely in charge of the car, and yet if the car were to stop at the wish of the passenger, it was desirable to have automatic means to do that."

He says that when he was in Detroit in July 1920 he stopped at the Tuller Hotel where the elevator service seemed particularly bad (R. 75).

"These observations caused me to realize that there was necessity for these conditions to be corrected and I proceeded to try to find some way of doing it. My thought along that line resulted in a system of control which would eliminate the errors I had experienced."

At that time he realized that the car should be *started only* by an operator in charge of the car, as he (R. 75)—

"considered it essential for the safety of the passengers to have the means for starting the car entirely within the control of the operator."

In explaining the mechanism shown in his patent to his patent attorney he stated that by it he wanted (R. 76):

"to perfect manual control at the starting under the control of the operator, and automatic stopping provided within the car and on the floor landings,"

and—

"showed him my mechanism by which that was to be accomplished."

At the time he sold his patent to the Otis Elevator Company, he again stated to its representative (R. 79):

"that the invention consisted essentially in the *manual starting* of the elevator by *means within the single control of an operator*, and the automatic stopping of the elevator by means located on the floor landings and also within the car."

PLAINTIFF UTILIZES PARKER INVENTION IN ITS "SIGNAL CONTROL" ELEVATORS.

The "Control" for electric elevators of the Parker patent is largely responsible for a new type of elevator now widely used and known as "Signal Control Elevators" (R. 60. See also Master's Report, R. 565).*

The first "Signal Control" elevators utilizing the Parker invention were installed by plaintiff in the Standard Oil Building in New York City in the early part of 1924 and are still in operation (R. 53, 142; for cut of this building see R. Vol. 2, 104).

Plaintiff's "Signal Control" elevators were first installed in San Francisco at the Pacific Telephone and Telegraph Building in 1925 (R. 147) where they may be seen.** (For cut of this building see R. Vol. 2, 64).

The Master's findings remain unchallenged by any evidence that (R. 564) :

"as a part of the Pacific Telephone and Telegraph Company installation the plaintiff followed the teachings of Parker's disclosure."

and that (R. 565) :

"In commercializing their 'signal control' elevators the plaintiff has met with success. This success is due, in large measure to those features that resulted from Parker's disclosure. Parker's *automatic control* has

* The Court may be interested in reading at the outset the article in the Scientific American of October, 1925, entitled "Elevator with Brains" here in evidence (R. Vol. 2, pp. 54, 55). This briefly describes and illustrates the operation of the Otis "Signal Control" elevators made under the Parker patent in suit and gives a general understanding of how the device operates and what it accomplishes (R. 65-66). This was published before defendant Llewellyn Iron Works started to design its infringing elevators in October, 1925 (R. 396). It is reproduced for the convenience of the court in the fore part of the appendix to this brief.

** A wiring diagram of this installation is in evidence as Defendants' Exhibit DD" (offered R. 512), and "a straight line diagram of the important currents" (R. 564) is reproduced as Plate V in the appendix to this brief.

Some of the other buildings where Otis "Signal Control" elevators are installed are listed in Plaintiff's Exhibit 13 (R. Vol. 2, 57, 58, 139, 140). Among those listed under San Francisco are Hunter-Dulin Building (See cut, R. Vol. 2, 59) and Russ Building (See cut, R. Vol. 2, 65).

eliminated the difficulties which resulted from human error such as operator's forgetting floor stops and passing waiting passengers."

EARLY DIFFICULTIES AND COMMERCIAL SUCCESS OF PARKER INVENTION.

At the outset of the plaintiff's introduction of this device, competitors West of the Rockies opposed its use and would say (R. 58)

"that our (plaintiff's) signal control elevators in this territory was a claptrap or unnecessary device * * * and that equally good service could be accomplished by manually controlled elevators under proper conditions."

To overcome this resistance from competitors and the trade, plaintiff took architects, builders and contractors to various jobs where the Parker "Control" had been installed and showed them the installation. It thereby demonstrated the entire practicability and utility of the Parker invention, for (R. 60)

"it is more impressive and more convincing to see the simplicity and accuracy of the operation than to attempt to describe it."

As a result of such demonstrations of the Parker "Signal Control" elevators

"There is a constantly increasing demand for the signal control. It is being accepted as the best or standard for the very highest type of buildings. This is due primarily to the satisfactory operation and the demonstration, by actual installation of the success of the type for the purpose for which it has been installed." (R. 60.)

"The approximate sales of these signal control elevators by the Otis Elevator Company throughout the country since they were first put out" * * *, up to April 1929, were "about \$33,000,000.00." (R. 59.)

This is a "fact to which great weight is to be given" in determining invention. (*Stebler v. Riverside Heights*

Orange Growers' Asso., 205 Fed. 735 (C. C. A. 9), and cases there cited.) As said by the Supreme Court in the *Eibel Paper case*, 261 U. S. 45, at page 56, this

"is very weighty evidence to sustain the presumption from his (Parker's) patent that what he discovered and invented was new and useful."

ADVANTAGES AND NOVELTY OF PARKER INVENTION.

The Parker pioneer "Control" made possible the numerous advantageous results described by Parker, and by the plaintiff and defendants alike in connection with the sale of their very complicated elevator mechanisms.

The advantages of the Parker concept and the results obtained by his "Control," when applied to a "car switch" electric elevator, of starting only from within the car by operating the "car switch," and of automatically stopping the car at any floor, in response to push buttons located either within the car or at each landing, were entirely new. The record shows that these advantages and results had not been secured before the Parker invention. In fact, a thoroughly experienced electrical engineer, testifying on behalf of the defendants, said that previous to the Parker invention, he (R. 339)

"had never seen any drawings or descriptions of any devices of elevators which were started only by an operator operating a switch within the car and which could be automatically stopped either by pushing buttons within the car or from the landing, and the starting could not be done from the push-buttons. I had never heard of anything like it."

The cross-examination of defendants' expert, Mr. Doble, likewise shows that no one of the prior art patents relied upon by defendants disclosed any structure which had in it a "Control" mechanism which would accomplish this result.

Parker's invention is truly a pioneer in this type of con-

trol. As said by this court (Gilbert and Ross, Circuit Judges, and Wolverton, District Judge), speaking through Circuit Judge Gilbert in *Kings County Raisin & Fruit Co. v. United States Consolidated Seeded Raisin Co.*, 182 Fed. 59, at 63, in finding infringement, the

“machine being the first successful machine to accomplish a new result” is accordingly “entitled to a broad and liberal construction.”

This court in *Butler v. Plow Co.*, 23 F. (2d) 15, 24, also aptly quotes from the *Eibel case* (261 U. S. 45, 63), as follows:

“A patent which is only an improvement on an old machine may be very meritorious and entitled to liberal treatment.”

For further advantages of the Otis “Signal Control” elevators, made possible by its utilization of the Parker invention, see the testimony of Mr. Charles of San Francisco (R. 55-58), Mr. Crabbe of New York (R. 194-196), and Mr. Reed of San Francisco (R. 115-122).

PARKER'S “CONTROL” IN DEFENDANTS' ELECTRIC ELEVATORS.

The single installation of four elevators, against which the charge of infringement is directed, was admittedly made by the Llewellyn Iron Works and installed and operated in the Pacific Finance Building in Los Angeles (R. 49).

These four elevators are represented in evidence by defendants' stipulated wiring diagrams (Plaintiff's Exhibits 4-I to 4-X inclusive) and by Plaintiff's Exhibits 5, 6, 8 and 9 (R. Vol. 2, 30-44).

In tracing the circuits of defendants' installation the Master used defendants' exhibits O-1, O-2, O-3 and O-4 (R. 575; R. Vol. 3, 189-192), and photographs, defendants' exhibits I-1 to I-9 inclusive, and defendants' exhibit N (R. Vol. 3, 179-188).

The Vice-President of defendant company and its Chief

Engineer, Mr. Baruch, admits that defendants claimed for their elevators, here charged to infringe, that (R. 133):

“this so-called automatic stopping control or signal control elevator of the Llewellyn Iron Works accomplishes the same results as the Otis signal control elevator.”

He more fully shows that defendants’ elevators embody the concept of Parker’s pioneer “Control” and that their operation corresponds to that of the Parker patent and to plaintiff’s installation made under it, by stating (R. 133-134):

“In the ordinary course of operation in the Pacific elevator construction, the *starting* of the car is *done entirely* by the *operator* and the *stopping* is *done* either by the operator pushing *a button in the car* or the passenger pushing *one at the landing.*”

“Neither *the passenger* outside the elevator *nor the operator* in the car *can start* the car, except the operator within the car may use the master switch for starting it in the Pacific Finance Building.”

“In the Pacific Finance elevators the operator from within the car may push a button corresponding to any floor as the floor is called. And when he or she has done that the car automatically stops at the floor which is indicated without having the operator do anything else, and when any passenger at any landing pushes either the up or down button, the car is automatically stopped without the operator in the car having to do anything.”

Defendants’ witness, DeCamp, fully confirms this (R. 397).

MASTER FULLY UNDERSTANDS THE PARKER PATENT AND BOTH PLAINTIFF’S “SIGNAL CONTROL” ELEVATORS AND DEFENDANTS’ “AUTOMATIC STOPPING CONTROL” ELEVATORS UTILIZING IT.

The Master examined both the plaintiff’s “Signal Control” elevators in Los Angeles and the defendants’ elevators at the Pacific Finance Building, in Los Angeles, each of which utilize the Parker invention, on at

least two occasions during the progress of the hearing and while the cause was under submission (R. 552). All of the witnesses were examined in the presence of and questioned by the Master concerning the construction and operation of the Parker patent, the Otis "Signal Control" elevators, and the defendants' installation, with diagrams before him. He fully understood and appreciated the Parker "Control" and the radically new functions it performed. He accurately grasped the Parker concept.

He also appreciated the advantage of taking out of the hands of the operator everything, except

- (a) the starting of the car, and
- (b) the pushing of buttons, in the car, corresponding to the floor at which the passengers desired to stop, as the passengers enter the car and call their floors, which results in the automatic stopping of the car at each floor for which a button has been pushed.

He also appreciated, from the testimony of witnesses who appeared before him, that when an elevator is controlled by the Parker invention, the stopping of the car, at the landings desired by the passengers or intending passengers, once buttons had been pushed either in the car or at the landings, is entirely automatic and that the car would stop, in sequence at the floors for which buttons had been pushed, without the operator having to do anything with his car switch, and that the car was *started only* from the car switch. He also found that this was a radically new concept.

We respectfully refer this Court to the Master's report for a correct understanding of the Parker concept and proper appreciation of the Parker "Control" for electric elevators. He finds from the undisputed evidence of witnesses who appeared before him that the success of the Parker invention, is due to its adaptability for use in connection with previous and later elevator installations. He

points out the results which it has accomplished, and its position in the art.

The Master was clearly right in his finding that the Parker pioneer "Control" accomplished an entirely new result and injected into the elevator art a practical means for accomplishing that result, and that (R. 574):

"Coming from one not trained in the art, it has taught the art a new means of control that solves many old problems. That it was contributed by an outsider negatives any theory that it was an obvious step. Otherwise, elevator engineers would have accomplished it long before Parker * * * the invention, judged by the results, is a radical step forward. Parker is entitled to a high standing for the inventive thought expressed in his patent."

The lower court states (R. 636) "the master's report may be referred to for a more complete description of the Parker device" and (R. 634):

"The master's report shows that he gave close study to the evidence presented to him, and that he acquired a very thorough knowledge of the mechanics, electrical and other kind involved in the Pacific Finance installation, as well as those included within the specifications and claims of plaintiff's patent. The patent law which he applied to the facts as found by him seems to accord with the well established principles."

and that (R. 642):

"I have let it be understood that the master's report properly describes the operation of defendants' system."

In view of these statements of the lower court as to the Master's understanding of the Parker invention and patent and plaintiff's and defendants' devices, which he saw and examined, and of the the court's failure to understand these, we respectfully submit that the Master's description of the invention and of plaintiff's and defendants' installations utilizing the Parker "Control" for electric elevators, as well as his findings thereon, should be used as a basis for this Court's opinion.

The Master's report should be taken as presumptively correct and should be followed unless an obvious error has occurred in the application of the law, or a serious and important mistake has been made in the consideration of the proof. The burden is on the defendants to clearly establish the mistake or misconduct. This they have failed to do.

The language of the Supreme Court in *Adamson v. Gilliland*, 242 U. S. 350, is particularly applicable to the situation here. Speaking through Mr. Justice Holmes the court said at page 353:

“Considering that a patent has been granted to the plaintiff the case is preeminently one for the application of the practical rule that so far as the finding of the *master* or judge *who saw the witnesses* ‘depends upon conflicting testimony, or upon the credibility of witnesses, or so far as there is any testimony consistent with the finding, it must be treated as unassailable.’”

Kimberly v. Arms, 129 U. S. 512, 523.

Empire Rubber & Tire Co. v. De Laski & Thropp,
281 Fed. 1 (C. C. A. 3).

Davis v. Schwartz, 155 U. S. 631.

Crawford v. Neal, 144 U. S. 585, 596.

Furrer v. Ferris, 145 U. S. 132, 134.

Snow v. Snow, 270 Fed. 364, 366, 367 (App. D. C.).

Nash v. Milford, 33 App. D. C. 142, 144, 149.

Lawson v. U. S. Mining Co., 207 U. S. 1, 12.

Mason v. United States, 260 U. S. 545, 556.

Cramer v. United States, 261 U. S. 219, 226.

Walsh Construction Co. v. City of Cleveland, 271
Fed. 701, 703, 704 (D. C. Ohio).

Westinghouse v. Wagner, 281 Fed. 453, 462 (C.
C. A. 8).

Armstrong v. Belding, 297 Fed. 728 (C. C. A. 2).

Tilghman v. Proctor, 125 U. S. 136, 149-150.

THE LOWER COURT, WHO HEARD THE CASE ONLY ON EXCEPTIONS TO THE MASTER'S REPORT, FAILED TO UNDERSTAND THE PARKER INVENTION AND MISCONSTRUED THE PARKER PATENT.

The lower court, on the other hand, hearing the case solely on exceptions to the Master's report, neither examined plaintiff's nor defendants' structures, nor had them explained to him by witnesses, from diagrams or otherwise. He failed to understand the Parker "Control," its operation and its easy applicability to and use in connection with well-known electric elevators because—

(1) He even failed to realize that the use of the Parker "Control" prevented the elevator from *being started* by passengers *pushing buttons either in the car or at various landings*, and that it provided an electric "Control" which permitted the car to be *started only and singly* by the operator within the car throwing his switch to "on" position, so that the car thereafter would run until automatically stopped in response to electrically controlled means initiated by pushing buttons in the car or at the landings.

(2) In his opinion (R. 636) the lower court refers to the drawings of the Parker patent as illustrating "*means through electrical circuits whereby, by operation of the push buttons, the power of the hoisting motor would be applied*" as well as "*shut off*."

The *push buttons* of the Parker patent have nothing whatever to do with *applying* the power to the hoisting motor either in the Parker patent, in plaintiff's "Signal Control" elevators or defendants' structure. The *push buttons* of the Parker patent *are used only* for the setting up of circuits *which cause the automatic stopping* of the car. This vital misunderstanding of the operation of the Parker device led to the lower court's failure to appreciate the Parker invention and what it accomplished.

Such an operation as the court attributes to the structure of the Parker patent would entirely defeat the purpose of the Parker concept.

It is quite unnecessary to cite authorities on the fundamental rule that an asserted patent must be construed according to its definitely expressed objects. It is evident that the lower court failed to give the Parker claims the scope to which they are clearly entitled, due to his misapprehension of the Parker concept and invention and his improper analogy between it and the Ihlder 1902 patent, 710,914 (R. Vol. 3, 369) which the Master says "is the closest reference" (R. 560). The lower court also so treats it (R. 638).

The claims in suit clearly cover defendants' control.

It is well settled that an alleged prior patent must be construed so as to carry out the object set forth and operate substantially as described. *It is not to be so interpreted as to defeat the very object of such patent.* Yet this is just what the lower court has done with respect to the Ihlder patent. (See *infra*, p. 126.)

Clough v. Barker, 106 U. S. 166, 176.

Topliff v. Topliff, 145 U. S. 156, 161.

Naylor v. Alsop Process Co., 168 Fed. 911 (C. C. A. 8).

Kryptok v. Stead Lens Co., 207 Fed. 85, 92 (D. C. Mo.).

General Electric Co. v. Hoskins Mfg. Co., 224 Fed. 464, 467 (C. C. A. 7).

Munising Paper Co. v. American Sulphite Pulp Co., 228 Fed. 700, 703, 704 (C. C. A. 6).

Frey v. Marvel Auto Supply Co., 236 Fed. 916 (C. C. A. 6).

Goessling Box Co. v. Gumb, 241 Fed. 674 (C. C. A. 8).

The lower court also failed to appreciate the radical step forward which the evidence shows, and the Master found, characterized the Parker invention. He for the first time pro-

vided a "Control" whereby the elevator car must be *started singly* and *only* by the operator throwing the car switch *within the car* to "on" position, (it does not permit of its being *started* by pushing buttons at landings or in the car) in combination with means for automatically stopping the car at various landings, in succession, *only* in response to push buttons in the car corresponding to those landings, or to push buttons at the landings.

That the lower court failed to appreciate this invention is clearly shown by his opinion, which states (R. 637):

"If no such means of electrical control had theretofore existed and Parker had, for the first time, devised a system which supplied a new and highly desirable form long looked for by the manufacturers of elevators, the claim of a primary and pioneer invention might well be predicated."

The record conclusively shows that no such "Control" for electric elevators existed before the Parker invention and the Master so found (R. 561, 567, 569, 574). Had the lower court appreciated this, he would of necessity have reached the same conclusion as to infringement as did the Master.

PLAINTIFF'S ASSIGNMENT OF ERRORS

Plaintiff insists that the lower court erred (R. 651) in decreeing

- (a) that defendants do not infringe the claims of the Parker patent here asserted,
- (b) in dismissing the bill of complaint, and
- (c) in denying the plaintiff the relief sought by its bill.

ARGUMENT.

Parker was not the first to provide an Electric Elevator or an Electrical Control therefor. These were very old, but he was the *first* to provide a “Control” for an electric elevator which so functions and operates as to insure the *starting* of the car “*entirely and singly*” in the manual control of the car operator, and the stopping automatically attained, in sequence at the different floors, in response to push buttons located in the car and at the different floors.

The “Controls” of the prior art, for the starting and stopping of Electric Elevators, may be divided into two general classes:

First. The “*car switch*” type, in which both the starting and stopping of the car is controlled entirely through the operation of a car switch in the car by an attendant. This type has been generally used in office buildings.

Second. The “*push button*” type, in which the car is controlled by the passengers and intending passengers themselves. In this type, a passenger in the car, desiring to be carried to a certain floor, pushes a button in the car for that floor which causes the car to start and go to that floor. Likewise, an intending passenger at a floor, desiring to use the car, pushes a button at that floor which causes the car to start and come to that floor. In these elevators no one else can use the elevator until after the one first pushing a button gets through with it. This type is used to some extent in houses and small apartments, where the traffic and speed elements are unimportant and would be of no practical value for the modern high office buildings. It is the type shown in the Ihlder patent. (R. Vol. 3, 369.) It is discussed both *supra* and *infra*.

Electric elevators of both these types have been made and sold by the plaintiff and others for more than thirty-

five (35) years and by the plaintiff in California for thirty (30) years or more (R. 87).

With the *first* type "Control," that is, the "*car switch*," the operator had to carry in his mind the various floors called by the different passengers as they entered the elevator in order to deliver them to the floor desired by each, or the passenger had to call the floor before it was reached to prevent his being carried by. The operator also had to depend upon remembering the signals flashed in his car, in order to pick up a passenger standing at a given floor who had signalled him from that floor. This was true regardless of the kind of mechanism used for accelerating, decelerating or self-leveling in connection with such style of "Control."

This resulted in passengers being very frequently carried by the floor at which they intended to land and required the operator to bring them back to that floor by reversing his car switch.

Frequently it happened that passengers standing on various floors, which the elevator was intended to serve and who desired to go up or down, were passed by the operator and they were compelled to wait for another trip of the elevator or until a second elevator stopped for them. These objections and disadvantages were long and well known (R. 51-53, 55-59, 74-75, 194-197, Parker Patent, p. 1, lines 39-48).

It was with this *first type*, the "*car switch*" attendant controlled elevators, that Parker's "Control" had primarily to do. It was designed to be incorporated into this type in such a way as to have the *starting* of the car entirely in the hands of the operator and to attain the stopping by automatic means.

NATURE OF INVENTION FULLY DISCLOSED IN THE PARKER PATENT.

The Parker original patent on a “*Control for Electric Elevators*” was issued August 26, 1924, (application filed April 25, 1921). It was assigned to the Otis Elevator Company, plaintiff, November 12, 1925. Within fifteen (15) months of the issue of this patent, *i. e.*, on November 13, 1925, the application for reissue was filed and promptly thereafter the patent was reissued on March 23, 1926, No. 16,297. The specification and drawing of the reissue patent are identical with those of the original patent.

The title of the patent is “*Control for Electric Elevators.*”

Parker states that he has (Patent, p. 1, line 5)—

“invented certain new and useful Improvements in
Controls for Electric Elevators.”

The Parker invention is especially designed and stated to be (Patent, p. 1, line 16):

“a system and means for controlling electric elevators.”

This is repeatedly stated in his Patent (p. 1, lines 31, 40 and elsewhere).

The original Parker patent and its reissue, as well as the testimony of the inventor himself, show that the Parker invention relates to a pioneer concept and resides in *means for so controlling electric elevator mechanisms of the “car switch” type,*

“whereby the *starting of the car*, either up or down in the shaft, *is entirely and singly within the manual control* of the car operator, but whereby *the stopping* of the car at predetermined points in its ascent or descent may be *automatically attained*” (Patent, p. 1, lines 32-38).

The Parker patent refers to his "Control for Electric Elevators" (Patent, p. 1, line 19) as—

"a novel system and means of control whereby the elevator car may be caused to automatically stop in proper alignment with predetermined floor levels by virtue of the actuation or setting of secondary control means, which may be provided within the car alone, or both within the car and at each floor level; said secondary control means being adapted to cooperate with the master control switch within the car, which master switch is subject to the manual control of the car operator."

Parker further points out in the following language that the principal object of his invention was to overcome difficulties long recognized, but never remedied. (Patent, p. 1, line 39)—

"The invention has for its *principal object* to provide a novel *system* and *means* for *controlling* electric elevators of the general characters above mentioned, which is adapted to *eliminate the errors made by inexpert operators, who bring the car to a stop a few inches above or below the proper level, and to also prevent such operators failing to stop at a floor which a passenger has previously called for.*"

Parker solved this problem by providing means for so controlling the mechanism for the *starting* and normal running of the car that this had to be done "*entirely and singly*" through the operator manually throwing the car switch handle to "*on*" position in combination with means for *automatically stopping* the car through *secondary circuits*, in which push buttons, either in the car or at the landings, *initiate* a circuit to be completed by the selector mechanism, to stop the car, in proper sequence, at each of the landings for which buttons have been pressed.

In other words, once the car has been started by the car operator the running circuit is maintained closed, so that the car continues to run until automatically stopped by the action of the secondary circuits, initiated by pushing but-

tons either in the car or at the landings, in conjunction with the action of the selector mechanism.

Parker says of his *stopping control* mechanism (Patent, p. 1, lines 58-70) that—

“This electrical mechanism becomes operative upon the simultaneous fulfillment of two conditions,

(1) one condition being the closing of a manually actuated secondary switch, *under the control of the operator within the car* (the push buttons in the car) or, if desired, *under the control of a passenger on a floor level* at which the latter desires the car to stop so that he may enter the same (through pushing a button at any landing) and

(2) the other condition being the *automatic closing* of another secondary switch in the same circuit, which momentarily occurs as the car reaches the desired floor level.”

Parker thus provides, in his stopping mechanism, push buttons in the car, under the control of the attendant, and push buttons at each floor, under the control of waiting passengers, any one of which, upon being pushed, closes a switch to set up a circuit, in his stopping control, which is later automatically completed by a second switch controlled by a selector operating in synchronism with the movement of the car. The automatic completion of the secondary control circuit brings about the slowing down and stopping of the car.

In the stopping operation, Parker clearly contemplates the *timing* and *arrangement* of the automatic secondary circuit closing means in such a way (Patent, p. 5, lines 25-30)—

“as to allow for the timely operation of the usual braking mechanism to overcome the momentum of the car, so that the ultimate point at which the car comes to rest will be in proper alignment with the floor level.”

This statement in the Parker patent, by which he clearly called attention to so *timing* and *arranging* his automatic secondary circuit closing means with relation to the usual

braking mechanism, so that "the car will come to rest in proper alignment with the floor level," plainly shows that Parker contemplated such an "arrangement" and "timing" of his secondary control circuit in combination with such braking mechanism as would overcome "the momentum of the car" and cause it to decelerate and finally stop "in proper alignment with the floor level."

At the time Parker filed his application on his "Control" he knew of slow-down or stopping mechanism for elevators which could be incorporated in his system, and that such mechanism was in existence in Otis elevators, and that by this mechanism cars could be brought exactly to the floor level, and he knew a system of relays could be installed which would bring about that result, and that in drawing his patent application he (R. 108, 109)

"relied on apparatus I knew to be in existence."

Parker also makes it clear from his testimony where he says (R. 108) that by the momentary setting of the circuit through the "contacts on the floor selector" which "initiates the breaking of the power circuit," he did "not imply that the power is instantly shut off," or that this instantly stopped the car, but that it was contemplated to use his "Control" in connection with—

"mechanism that brought them" (the cars) "exactly to the floor level,"

then in common use and with which he was familiar in the Otis elevators (R. 107, 108). His patent clearly contemplates the use of his "Control," in connection with any "of the usual braking mechanisms to overcome the momentum of the car" with which the "automatic secondary circuit" is so timed that the car is automatically brought to the exact floor level. (Patent p. 5, lines 23-30.)

For many years previous to the Parker invention, the art knew about, and the plaintiff used in its high speed

elevators, "automatic slow-downs entirely beyond the operator's control," which functioned to bring the car from full to slow speed as it approached a given stopping point. (See *Otis v. Kaestner & Hecht*, 234 Fed. 926, 931-933.)

It was quite unnecessary for Parker to illustrate and describe in his patent any slow-down and self-leveling mechanism as the law does that for him. This is well illustrated by what the Supreme Court said in *Loom Company v. Higgins*, 105 U. S. 580, speaking through Mr. Justice Bradley, at page 585, in holding the patent there involved valid and infringed:

"If a mechanical engineer invents an improvement on any of the appendages of a steam-engine, such as the valve-gear, the condenser, the steam-chest, the walking beam, the parallel motion, or what not, he is not obliged, in order to make himself understood, to describe the engine, nor the particular appendage to which the improvement refers, nor its mode of connection with the principal machine. These are already familiar to others skilled in that kind of machinery. He may begin at the point where his invention begins, and describe what he has made that is new, and what it replaces of the old. *That which is common and well known is as if it were written out in the patent and delineated in the drawings.*"

PARKER "CONTROL" NOT LIMITED TO EXACT DISCLOSURE OF HIS PATENT.

The Parker "Control" is not limited for use in connection with any particular type of electric motor drive, or to any particular manual "car switch" controlled electric elevator mechanism, whether of the prior art, or otherwise. The character of car switch is likewise immaterial.

The real point is that Parker's "Control" is equally adaptable for use in connection with any of the previously well-known electric elevator equipment, and with various improvements thereon which have been made, and that it is

embodied in both the Otis "Signal Control" elevators and the defendants' structure, for (R. 199) :

"Signal control is not possible without a device such as the Parker patent."

Parker with simplicity and directness of statement, characteristic of his entire testimony, eliminated all unnecessary description in his patent, and focused directly upon his "Control" for electric elevators, and clearly and sufficiently described it to show that it was adapted for use in electric elevators. Plaintiff's and defendants' use of it shows that it was readily understood and that the problem "once solved (by Parker) presented no difficulties." *Diamond Rubber Co. v. Consol. Tire Co.*, 220 U. S. 428, 435. (R. 523.)

That the patented "Control" and its operation was plainly understood by the Otis Elevator Company's engineers who applied it to their practice is conclusively shown by the testimony (R. 197, 198).

It was likewise understood by defendants' engineers (R. 498, 501) and by other witnesses (R. 522).

It is true that Parker, in conformity with the general practice of showing electrical inventions in patent applications illustrated—

"the novel features and relations of the several mechanisms and electrical circuits * * * in diagrammatic form" (Patent, p. 1, line 76)

and made no attempt to show the exact character of electrical switches or the exact positioning of the various parts thereof.

He did not require the

"use of any particular kind of pole-changing switch, but may employ any type which is commonly used or found desirable for electric elevator systems." (Patent, p. 2, lines, 80, *et seq.*)

His drawings and specifications made entirely clear to

elevator engineers, the general principles of the operation of his invention, the relationship of the operative parts, electrical and mechanical, to each other (R. 522).

He also fully understood that "various changes" would be necessary to adapt it to the various elevator installations theretofore in use or those to be thereafter constructed. He is remarkably clear in this where he says (Patent, p. 5, line 122):

"The *principles* of this invention will be fully understood from the above description of the various devices and parts, together with their novel arrangement and interrelation, as well as from the manner of its operation as above described. I am aware, however, that *in practice various changes may be made in the detail construction of the various parts*, especially is this so with respect to the manually operable closing means for the secondary circuits," (i. e., push buttons) "to the automatic closing means for said secondary circuits" (i. e., the selector mechanism) "and to the detent means for the switch-arms 4 and 4'" (i. e., the car switch control) "consequently it will be understood that all alterations or variations of such parts, which do not alter the general principles of operation of this invention, as a whole or as to subcombinations thereof, may be made without departing from the scope of this invention as expressed by and in the appended claims."

MR. PARKER FULLY EXPLAINED HIS INVENTION TO THE MASTER, BY WHOM IT IS ACCURATELY DEPICTED IN THE LATTER'S REPORT.

The inventor, Mr. Parker, was examined before the Master as a witness for the plaintiff, and while on the stand traced from enlargements of the patent drawings the circuits and mechanisms shown therein (see plaintiff's exhibit 14, R. Vol. 2, 141; also reproduced in Appendix as Plate I.) and pointed out what he sought to accomplish through the use of his "Control," in connection with any of the manual car switch control elevators and what had

been done as a result of his invention. His description of the construction and operation of the Parker patent is found in the record (R. 88-94). It is also described by one of plaintiff's engineers, Mr. Crabbe (R. 145-148).

That the Master clearly understood the Parker "Control" and its operation, testified to before him, is apparent from his very accurate analysis of it (R. 553-560).

The lower court confirms this when he says "The Master's report may be referred to for a more complete description of the Parker device." (R. 636)

The Master says R. 553-560:

"Beginning at line 16, page 1, of the patent, the patentee states":

"This invention relates, generally, to a system and means for controlling electric elevators; and the invention has reference, more particularly, to a novel system and means of control whereby the elevator car may be caused to automatically stop in proper alignment with predetermined floor levels by virtue of the actuation or setting up of secondary control means, which may be provided with in the car alone, or both within the car and at each floor level; said secondary control means being adapted to cooperate with the master control switch within the car, which master switch is subject to the manual control of the car operator. Furthermore, this invention relates to a system and means for controlling electric elevator cars, whereby the starting of the car, either up or down in the shaft, is entirely and singly within the manual control of the car operator, but whereby the stopping of the car at predetermined points in its ascent or descent may be automatically attained if desired."

Going to the specific description of the construction and operation, the Master says (R. 553):

"The patent drawing discloses in diagrammatic form an arrangement of circuits and circuit closing means in relation to an elevator car and its hoisting mechanism. The circuits can be followed on the patent drawing, preferably the enlarged copy, Exhibit 14,

on which the circuits have been traced with various crayon colors. (R. Vol. 2, 141; also Appendix to this brief, Plate I.) Plaintiff's Exhibit 7 in the bound book of exhibits gives the circuits separated from one another in a straight wiring diagram. (R. Vol. 2, 42.) The car is suspended by a cable that engages a hoisting drum, which is operated by an electric motor, 17. The motor 17 is operated by current which is supplied through, controlled and reversed by, a pole-changing switch. By reversing the flow of current the car can be made to move in either an up or down direction. Current flows from the source of current, wire 12, through wire 25 to the pole 23 of the pole-changing switch, contact 20, wire 27, through the motor 17, wire 28, contact 21, pole 24, wire 26, to the other side of line 13, to move the car in an upward direction. The current flows from wire 12, through wire 25' to pole 23', contact 21, wire 28, motor 17, wire 27, contact 20, pole 24', wire 26' to wire 13 to move the car in a downward direction. To close the pole-changing switch in either direction or interrupt the flow of current through it a switch, numbered 1, is located within the elevator car. A manually operated lever 8 can be moved to carry the switch arms 4 or 4' to bridge the contacts 10 and 11 or 10' and 11'. The unqualified numbers relate to the up currents and switches; the prime numbers to down circuits. Generally the description of an up circuit could without change be read on a down circuit. When contacts 10 and 11 are bridged by the operator's moving the manual switch two circuits are set up. One of these is from wire 12 through wire 14, contact 10, plate 9, on arm 4, contact 11, wire 15, through solenoid 16, to the other side of the line, wire 13. This circuit energizes the coil 16, closing the pole-changing switch at the gaps 24-21 and 23-20, which permit the current to flow to the motor, moving the car upward. The second circuit that is set up is through wire 14, contacts 10 and 11, by plate 9, through coil 32, wire 33, to wire 13. This is the circuit energizing the coil 32 which holds arm 4 in closed position. The lever 8 can be returned to its neutral position without breaking the circuit through the coil 16. The operator within the car has no further control over the car movement through the manual switch, as the arm is locked in circuit closing position.

For stopping the car another separate system of cir-

cuits and switches is provided. Likewise stopping circuits are separately provided for up and down movement. Forming a link in each circuit is the floor selector which is synchronized with the car movement. Upon the selector is switch plate S, carrying a series of contacts, f-2 and 2', f-3 and 3', f-4 and 4', corresponding to the floors in both up and down directions. An arm 34 as it rotates will successively bridge the rings g or g' and contacts f or f'. The rings g and g' are connected to the other side of the line by wires 36 and 38, and 36' and 38' which pass through the coils 37 and 37'. In the car is a series of buttons, one up and one down button for each floor. On each floor are two buttons, one up and one down. The floor selector and the car and floor buttons are connected in the secondary or stopping circuits. In each stopping circuit there are circuit closing means manually operable, located in the car or at the floor landing and a secondary circuit closing means which is automatically closed by car movement. To complete a secondary circuit it must be closed at the selector and at either the floor button or the car button. Taking, for illustration, the second floor up-circuit,—it can be traced from the positive source wire 12, through the wire n-2 to contact j-2. The contact j-2 when actuated by the push button contacts with l-2, completing a circuit through the wire o-2, contact in the car p-2, arm c-2, wire h-2 to the contact on the selector plate f-2. When the car in its travel reaches a predetermined point on its upward travel the arm 34 bridges the contact f-2 and the ring g. This permits the current to flow from the contact f-2 to ring g, through wire 36 to coil 37, and wire 38 to wire 13, completing a circuit. The coil 37 being wound in opposition to coil 32, this neutralizes the action of coil 32, releasing the contact arm 4, and breaking the previously set up circuit through coil 16. This in turn breaks the circuit to the motor at the pole-changing switch, stopping the car. A second floor stopping circuit can be set up by pressing the car button a-2, which sets up a circuit from the wire 35, which is in connection with the positive source wire 12, through the contacts p-2 and d-2, wire h-2, to contact f-2. Thereafter the circuit is completed and current to the motor interrupted as explained above. The operation of stopping circuits for other floors can be fol-

lowed by using the same letters with the different numbered suffices, and the down circuits by using the prime characters. When a secondary or stopping circuit is completed the solenoid *e* corresponding to the floor is energized, resetting the switch in open position.

"In operation the car in charge of an operator receives passengers at the ground floor. As each passenger calls his floor the operator presses the corresponding car button for that floor, setting up on the selector a corresponding circuit. When ready to start he moves the lever on the manual switch to the up-starting position, which starts the car through the circuits to the pole-changing switch and the motor. He then returns the hand lever to neutral. When the car approaches one of the selected floors the movement of the selector completes the stopping circuit, bringing the car to a stop. The passenger leaves the car and the operator manually starts the car again by moving the hand lever to the up position. After the car starts he returns the lever to neutral and the car again stops when it reaches the next selected floor. If a passenger wishes to board the car at an intermediate floor he depresses the button at the floor landing. This sets up a circuit, as previously described, which when closed by the movement of the selector brings the car to a stop at the floor. After the passenger enters the car the operator again manually starts the car.

"Certain statements in the patent specifications are to be noted. Referring to the then known usages in the art, the patentee states:

'No fundamental change is contemplated in the driving or starting mechanism of the system, but only in the master control switch within the car itself. It is intended to retain the positive features of manual control, but to add to such an electric mechanism which, upon being previously set, will interrupt the main driving or power circuit at predetermined points in the line of travel of the car. This electrical mechanism becomes operative upon the simultaneous fulfillment of two conditions, one condition being the closing of a manually actuated secondary switch, under the control of the operator within the car, or, if desired, under the control of a passenger on a floor level at which the latter desires the car to stop so

that he may enter the same, and the other condition being the automatic closing of another secondary switch in the same circuit, which momentarily occurs when the car reaches the desired floor level'. Page 1, lines 49, *et seq.*

'Of course, it will be understood that the timing of the automatic secondary circuit closing means may be so arranged as to allow for the timely operation of the usual braking mechanism to overcome the momentum of the car so that the ultimate point at which the car comes to rest will be in proper alignment with the floor level.' Page 5, lines 23 *et seq.*

"The patent does not disclose means for slowing down, stopping, and braking the car. It appears that Parker intended to use some system of slowing down, stopping, and leveling then in use that could be adapted to his control means. He knew that such systems existed but did not know of their specific structure and operation. That Parker knew little of electric elevator practice is evident from the many defects to be found in his specifications. This does not detract from his standing as an inventor, provided that his specifications give sufficient information to the elevator engineer to enable him to embody the invention in a successful elevator."

And (R. 559) :

"The evidence shows that at the time of the Parker disclosure the elevator art had advanced to such a degree that upon the manual operation of a car switch all further steps in deceleration and stopping a car level with the floor landing or returning it to the floor landing if stopped beyond the landing could be automatically accomplished."

And (R. 561) :

"Nothing in the prior art shows a combination of control means by which an elevator can be started by an operator and thereafter be stopped automatically at several landings in response to control means in the car and at successive landings in response to control means actuated at any time before the car reaches the selected landing. To obtain this result Parker has taken from the prior art the usual starting circuits.

This is his circuit through contacts 9 and 10 and coil 16 which closes the pole-changing switch. Passing through the coil 32 he has added another circuit not found in the prior art. This circuit is set up by the bridging of the contacts 9 and 10 and it results in removing the control from the operator's manual switch. The idea of a self-holding switch was not new but the application of that principle here is novel. Thereafter he has provided secondary circuits which are independent of the starting and running circuits, which are closed by two sets of switches—first, at buttons in the car or at the landings and, second, at a selector which is synchronized with the car movement. These circuits run from one side of the line through floor and car buttons to the selector contacts, thence through the coil 37 to the other side of the line. The completion of one of these circuits energizes the coil 37 and cuts the running circuit at the pole-changing switch. While in actual practice the closing of a secondary circuit sets up a complicated sequence of decelerating and stopping circuits, nevertheless, the secondary circuits of Parker suggested an entirely novel means of initiating the stopping operation."

And (R. 562) :

"Most important to consider is the general condition of the art at the time of Parker's application. By this time engineers knew how to build elevators, which were started by an operator in the car and were stopped by the operator's throwing of the manual switch into neutral either in response to a flash signal from a landing or at the request of a passenger. The opening of the manual switch set up an elaborate series of automatic operations which slowed down, stopped, leveled the car, and braked the mechanism. Practically all of these features are found in plaintiff's and defendants' present installations. Also available to the art were devices of the character of the Randall signal machine. (See patent of Smalley and Reiners, Exhibit X-11). These machines received signals from hall push buttons through the main signal panel and relayed the signals to the first car to approach the signalling floor in the direction indicated. The signal reached the car as a light flash. In response to the flash the operator manually operated the car switch to initiate the stopping of the car.

"In brief, the elevator art at the time of Parker's application had developed high speed elevators in which the starting and stopping were initiated by the operator's closing and opening a switch in the car in response to a signal from a hall button or the request of a passenger. Acceleration, deceleration, and leveling could be done automatically after the operator initiated the operation by his car switch. Selectors had been developed which would complete a circuit to stop the car. These were used in the so-called push-button elevators which the patent to Ihlder illustrates."

PARKER FULLY COMPLIED WITH REQUIREMENTS OF PATENT OFFICE. HIS PATENT CLEARLY DISCLOSED TO ENGINEERS SKILLED IN THE ELEVATOR ART IN DIAGRAMMATIC FORM, AN OPERATIVE DEVICE AND THE INVENTION DISCLOSED IN IT WAS FULLY UNDERSTOOD BY PLAINTIFF'S AND DEFENDANTS' ENGINEERS WHO UTILIZED IT.

That Parker complied fully with the requirements of the Patent Office in his diagrammatic disclosure is evidenced by the fact that that Office had no difficulty in thoroughly understanding it and granting both his original and reissue patents. Not only this, but the Otis Elevator Company's engineers had no difficulty in understanding the invention disclosed to them by Parker in January, 1922 (R. 96), which it later embodied in its "Signal Control" elevators (R. 144, 563, 564).

Neither did defendants' counsel, Mr. Lyon (R. 500, 501) have any difficulty in understanding it nor in explaining to Mr. Baruch, defendants' chief engineer, how the Parker invention was intended to operate. This is shown by the testimony.

Mr. Lyon had occasion to become thoroughly familiar with it between June 26 and July 13, 1925 (R. 497), and then explained it to Mr. Baruch (defendants' vice-president and chief engineer) (R. 498)—

"so that he was familiar with it at that time."

He testified (R. 498) :

"I knew how it worked and I explained the intended operation to him. I understood the intended operation myself plainly at that time."

Thus Mr. Baruch, vice-president and chief engineer of the defendant company, had full knowledge of the Parker patent and invention months before he gave Mr. DeCamp directions for designing defendants' automatic stopping control in October, 1925. Mr. Baruch had also seen the plaintiff's "Signal Control" elevator previously at the Standard Oil Building in New York. He had also been advised of the Reissue of the Parker Patent before defendants' elevators were put into operation (R. 127).

The diagrammatic showing of the Parker "Control" in his patent is a common way of disclosing electrical inventions. It embodies the generic principle and works to accomplish Parker's entirely novel concept and important functions. The courts have repeatedly and uniformly held that patents are addressed to skilled engineers in the particular art, and if these engineers can build and operate the device, to carry out the invention or concept of the patent in the manner indicated by the patentee or known to the art, then the patent is valid.

The Supreme Court in *Hildreth v. Mastoras*, 257 U. S. 27, at page 34, speaking through the late Chief Justice Taft, in discussing the disclosure there involved said:

"The machine patented may be imperfect in its operation; but if it embodies the generic principle, and works, that is, if it actually and mechanically performs, though only in a crude way, the important function by which it makes the substantial change claimed for it in the art, it is enough. *Telephone Cases*, 126 U. S. 1, 535; *Mergenthaler Linotype Co. v. Press Publishing Co.*, 57 Fed. 502, 505."

See also :

- Radio Corp. of Am. v. Edmond & Co.*, 20 F. (2d) 929, 930.
- Remington Cash Reg. Co. v. National Cash Reg. Co.*, 6 F. (2d) 585, 618 (D. C. Conn.).
- Engineer Co. v. Hotel Astor*, 226 Fed. 779 (D. C. N. Y.).
- A. B. Dick Co. v. Barnett*, 288 Fed. 799, 800, 801 (C. C. A. 2).
- Thayer & Chandler v. Wold*, 142 Fed. 776 (C. C. Ill.).
- Von Schmidt v. Bowers*, 80 Fed. 121, 150 (C. C. A. 9).
- Dalton Adding Mach. Co. v. Rockford Milling Mach. Co.*, 253 Fed. 187 (D. C. Ill.).
- American Stainless Steel Co. v. Ludlum Steel Co.*, 290 Fed. 103 (C. C. A. 2).
- Minerals Separation, Ltd. v. Hyde*, 242 U. S. 261.
- Mergenthaler Linotype Co. v. Press Publishing Co.*, 57 Fed. 502, 506 (C. C. N. Y.).

PLAINTIFF UTILIZES PARKER'S INVENTION IN ITS "SIGNAL CONTROL" ELEVATORS.

Parker offered his invention to (R. 78)—

"the Otis Elevator Company because they were the largest operators in the field, and for my purpose the most suitable to deal with."

When, in 1922, he submitted his application for patent to Mr. Lindquist, the Chief Engineer of that company, and gave him the specifications and drawings of his application as originally filed, (R. 76) Parker showed his full appreciation of the fact that his structure was adaptable for use in connection with plaintiff's elevators.

After Parker had submitted the drawings and specifications of his application as filed to the Otis Elevator Com-

pany, and before plaintiff purchased his patent, the Otis Elevator Company thoroughly tried out the Parker invention in connection with its electrically operated mechanisms for slowing down and self-leveling elevators at the Standard Oil Building in New York in 1924 (R. 141-145). The success of this installation was responsible for the purchase of the patent and the very extensive subsequent use of installations utilizing it.

Otis "Signal Control" elevators had in them the then best known means for automatically slowing down and automatically self-leveling the *manually controlled cars* being sold by it prior to its purchase of his patent in 1925 (R. 256). Plaintiff had also used "automatic slow-down mechanisms" in its elevators for years prior to the Parker invention. In fact these had been described in the Federal Reporter in June, 1916. (See *Otis v. Kaestner & Hecht*, 234 Fed. 926, 931-933.)

Parker's "Control" for electric elevators was in use, in plaintiff's elevators, long before defendants made their infringing elevators. It was described in the Scientific American of October, 1925 (R. Vol. 2, 54, 55). It was seen by defendants' Chief Engineer, Mr. Baruch, at the Standard Oil Building in New York and he understood its operation (R. 129), which he described to his subordinate engineer Mr. De Camp in 1925, before the latter designed the defendants' installation (R. 404). Mr. Baruch said to Mr. De Camp that he—

"wanted the car to stop automatically from the car and hall buttons by means of push buttons, and that on account of having to use the manual control it would be necessary to use a manually controlled switch in the car. He wanted the car to be started only from within the car and to have the car stop automatically from either the floor landing or from within the car."

The Master correctly found (R. 565);

"In commercializing their "signal control" elevators

the plaintiff has met with success. This success is due in a large measure to those features that resulted from Parker's disclosure. Parker's automatic control has eliminated the difficulties which resulted from human error such as operator's forgetting floor stops and passing waiting passengers."

The name "Signal Control" elevator given it by the Otis Elevator Company to designate this particular type of "Control" indicates the character of the Parker invention. The record shows that (R. 53)—

"A signal control elevator is one in which the *starting movement is initiated by an attendant in the car* and the stopping is controlled automatically through means of buttons placed in the car and on the various landings."

Plaintiff's engineers define the Otis "Signal Control" elevator as (R. 141-2)—

"one in which the car is started either in the up or down direction *by means of a car switch controlled by an operator in the car, and controlled by this person alone.* The stopping is entirely automatic and is initiated either by the operator from buttons in the car or from buttons located at the landing. Once the stopping circuit has been initiated the automatic stopping of the elevator itself is entirely without the control of either the operator or the passenger that may have pressed the landing button."

The record shows that while officials of the plaintiff company were generally familiar with the various elevators that were being installed for the last thirty years, one of them (Mr. Raymond W. Charles, of San Francisco, Vice-President of plaintiff), testified that (R. 60)—

"Previous to the date of the Parker invention I did not know of any devices having been made or sold or installed that would accomplish the results of the Parker device. I did not know of any elevator *previous to the Parker invention or signal control device in 1921 in which the elevator could be started only by the operator in the car and automatically stopped at every floor by either pushing a button within the car or by pressing a button at the landing.*"

The record will be examined in vain to find any prior structure which will accomplish this result.

An incident of the Parker "Control" is that it could be used in connection with elevator mechanism theretofore known, as well as in connection with various improvements since made, with equal facility (Parker Patent p. 5, line 22, R. 108, 147, 194, 199, 523.)

PARKER INVENTION EXTENSIVELY USED IN OTIS "SIGNAL CONTROL" ELEVATORS. THIS WAS SO FOUND BY THE MASTER.

The Master also shows from the testimony (R. 51-61, 141-145, 147) and his thorough knowledge of it as used by plaintiff that the Parker invention is successfully used in the now well-known Otis "Signal Control" elevator (R. 563-565). He says:

"The evidence establishes that the patentee, Parker, after making his application for Letters Patent submitted his application to the Otis Elevator Company. Thereafter, the Otis Elevator Company installed their so-called 'Signal control' elevators in the Standard Oil Building in New York and purchased the Parker patent for a small sum. Since that time the plaintiff has made a number of installations of this type of elevator, particularly in high office buildings where speed and accuracy of operation are most desired. One of these installations was in the Pacific Telephone and Telegraph Building in San Francisco. A wiring diagram of this installation is in evidence as defendants' Exhibit DD.* Plate V (plaintiff's Brief) is a straight line diagram of the important circuits.** Particularly to be noted is that when the car is started from the manual car switch contact SS, setting up a circuit through director switch B, contact 2-U, and relays N, U, and V, relay N simultaneously sets up another circuit through the direction switch B. Thereafter the running circuits are maintained by this circuit inde-

* Offered in Evidence, R. 512.

** Plate V here referred to is also reproduced in the Appendix as Plate V.

pendent of the car switch, which can be returned to neutral. The car stops when circuits set up through either a car button or hall button are completed by the selector, shorting out coils of relays U or V, which permits the pawl magnet to initiate a slowing down, stopping, and leveling sequence. This brings the car to a stop, during which operation the coil B on the direction switch is de-energized, breaking the running circuit.

"In this structure is found

- (1) a circuit controlled by a car switch to start the car,
- (2) a holding circuit which maintains the running circuits independent of the car switch, and
- (3) secondary circuits with manual circuit closing means located in the car or at the landing and automatic circuit closing means on a selector, for interrupting the running circuit and stopping the car.

As will later appear, these are the elements of the Parker invention. The conclusion is reached that as a part of the Pacific Telephone and Telegraph Company installation the Plaintiff followed the teachings of Parker's disclosure.

In commercializing their 'signal control' elevators the plaintiff has met with success. This success is due, in large measure to those features that resulted from Parker's disclosure.

Parker's automatic control has eliminated the difficulties which resulted from human error such as operator's forgetting floor stops and passing waiting passengers. It also permits the use of less skilled operators and relieves the operator of the greater part of his former responsibility. Many advantages claimed for the elevators by the plaintiff are not due to Parker's teachings but rather to automatic decelerating and self-leveling. For example, the elimination of stops above or below the landing cannot be attributed to Parker who goes no further than to say that he contemplates the use of the usual braking mechanism.

Parker's disclosure, divided into its elements, shows in combination:

- (1) An old form of starting circuit control through a car switch;

- (2) A novel means of holding that circuit closed independent of the car switch, and
- (3) A novel means of stopping the car by releasing the holding means through secondary circuits closed by manual operation of a switch either in the car or at the landing and by the automatic closing of a switch by car movement."

It is unimportant that the plaintiff, in using the Parker "Control" in its commercial elevators, did not follow the *particular* arrangement shown diagrammatically in Parker's drawings for it is fundamental that it is unnecessary to follow the particular form shown in the patent drawings when reproducing it for commercial purposes. It is seldom if ever done. As well said by the Court of Appeals for the Sixth Circuit in *Sandusky v. De Lavaud*, 274 Fed. 607, speaking through Circuit Judge Denison at page 609:

"it is not important whether plaintiff's successful operation was with a machine of the precise form shown in the drawing or was with a machine embodying obvious modifications."

See, also, *Royer v. Coupe*, 29 Fed. 358; *Wold v. Thayer*, 148 Fed. 227; *Pullman Co. v. Wagner Co.*, 38 Fed. 416; Robinson on Patents, Sec. 543, Vol. II; Walker on Patents, Sec. 126, Vol. I.

The importance of the Parker invention is not only demonstrated by its success and the increasing demand for it by the trade, but by the contest being here waged by the Llewellyn Iron Works (notwithstanding its claim to have installed only four elevators against which the charge of infringement is directed), with the cooperation or assistance of the powerful Westinghouse Company, who furnished part of the electrical equipment for defendants' infringing installation (R. 127).

Barry v. Harpoon Castor Mfg. Co., 209 Fed. 207, at 209 (C. C. A. 2).

Rajah Auto Supply Co. v. Grossman Co., 188 Fed. 73, 74 (C. C. A. 2).

Roth v. Harris, 168 Fed. 279, 283 (C. C. A. 2).

Hildreth v. Mastoras, 257 U. S. 27, 32.

DEFENDANTS HAVE FROM THE OUTSET ATTEMPTED TO COMPLICATE AND CONCEAL THE ISSUE.

In their voluminous briefs, covering approximately six hundred pages, filed in the lower court in support of defendants' one hundred and twenty-five (125) exceptions to the Master's report (R. 561-619), defendants' counsel stressed the details of the numerous electrical circuits and mechanisms of their elevators. Most of these are present in all high speed elevators, whether using Parker's invention or not. Defendants' counsel, in doing this, obscured the Parker "Control" which completely dominates the operations of these electrical circuits and mechanisms and thereby accomplishes the objects of Parker.

Defendants' counsel thus needlessly imposed upon the lower court, such a mass of details, that it is not surprising that in his attempt to understand this (R. 644)—

"complicated picture by close and arduous study, more study in fact than I have found necessary to devote to any case presented during my experience on the bench"

he became confused, even to the extent of misunderstanding the Parker invention and its operation and treats it as though with the Parker "Control" an elevator *could be started* by the operation of *push buttons* either "*at the floors or in the car*" (R. 638, 639). It so confused the lower court that he failed to see that if the elevator was *started* from the push buttons "*at the floors*" it would entirely defeat the purpose for which the Parker invention was intended. The Parker patent makes it entirely plain that with his control "*the starting* of the car, either up or

down in the shaft, is *entirely* and *singly* within the manual control of the car operator."

The confusion injected into the case by defendants, picturing the highly complicated accelerating, decelerating, leveling, door opening and closing, and other mechanisms used by defendants in connection with the Parker invention, seemed to greatly impress the lower court. In this connection the Court stated (R. 643) :

"Wonderful ingenuity is displayed in the highly complicated slow-down and floor selector machines used by the defendants."

whereas there was little new in any of these mechanisms over that of previous Otis elevator practice.

The lower court failed to appreciate what the Master grasped (R. 563), from the examination of the witnesses who appeared before him,

(a) that highly complicated slow-down, leveling and braking mechanisms had before been used in connection with elevators in which the starting and *stopping* was under the control of the operator's car switch, and

(b) that these were used in both the Otis "Signal Control" elevators at the Standard Oil Building in New York and at the Pacific Telephone & Telegraph office building in San Francisco, in combination with the Parker invention, long before the defendants completed, or even started to work on their infringing installation.

The lower court also failed to understand that the Otis "Signal Control" elevators, in use before defendants copied them, used the Parker "Control" and—

"includes an elevator system comprising an elevator car, a plurality of landings, and at least one intermediate landing, means for bringing the elevator car from rest to full speed, means for automatically initiating slowing down of the elevator car as it approaches any selected one of said landings, and automatic means for rendering said initiating means effective at different distances from the selected landing."

The Master very properly says (R. 563) that "practically all of these features are found in plaintiff's and defendants' installations." The Master specifically calls attention to the fact that the "highly complicated" mechanisms to which the lower court refers were used, *in combination with the Parker automatic control*, in the Otis "Signal Control" installation at the Pacific Telephone & Telegraph Building in San Francisco before defendants appropriated it. This finding is nowhere disputed in the evidence. A wiring diagram of this is in evidence as defendants' Exhibit DD (R. 563-565). *For simplified wiring diagram of this see Appendix Plate V.*

The outstanding new thing which defendants used in their elevators was the Parker "Control" which so dominated the rest of the mechanism as to make its "Automatic Stopping Control" possible. This was copied from Otis "Signal Control" elevators. It also utilized much of plaintiff's previous mechanism and controls in its elevators.

Defendants obscure the "Control" which dominates the starting, running, and stopping of its elevators, common to it and the Parker patent, and try to make it appear that the Parker invention was not present in defendants' structure contrary to the facts shown by the testimony and the findings of the Master.

It is not material whether the rest of the elevator operating mechanism is new or old but it is important that this mechanism is so harnessed by the Parker "Control" as to secure the results of his concept.

DEFENDANTS' ELEVATORS UTILIZE THE PARKER CONTROL.
THE "AUTOMATIC STOPPING CONTROL" OF THEIR ELEVATORS
ADMITTEDLY OPERATES IN THE SAME WAY TO GET THE
SAME RESULTS.

The Vice-President of the defendant company and its Chief Engineer, Mr. Baruch, admits that "he had followed the business very closely" and that defendants claimed for their elevators, here charged to infringe, that (R. 133)—

"This so-called automatic stopping control or signal control elevator of the Llewellyn Iron Works accomplishes the same results as the Otis signal control elevator";

and that plaintiff and defendants are the only ones who have sold any of the these elevators West of the Rockies. He also testified that in defendants' structure (R. 131)—

"You had the starting of the elevator by an operator in the car and the stopping automatically at the landing and from the car when it is initiated by push buttons at either place."

He more fully points out the operation which is common to the Parker patent, to plaintiff's installations, made under it, and to defendants' installation, by stating (R. 133):

"the *starting* of the elevators in the Pacific Finance Building are controlled *entirely* by the operator within the car;"

that, in defendants' installation, when a person enters the car and calls a floor and a button is pushed corresponding to that floor and the car started (R. 133-4):

"the car automatically stops at the floor which is indicated without having the operator do anything else, and when any passenger at any landing pushes either the up or down button the car is automatically stopped without the operator in the car having to do anything."

"Neither the passenger outside the elevator nor the operator in the car can start the car except the operator within the car may use the master switch for starting it in the Pacific Finance Building. There is a

series of floor buttons corresponding to each floor in the car within the easy reach of the car attendant in the Pacific Finance Building.

"There is one push button for each floor. The pushing of the push buttons in the car or the push buttons at the landings for stopping the car have nothing whatever to do with the starting of the car.

"When a button is pushed in the car in the Pacific Finance installation and one is pushed for the same floor from the landing, the car will stop at that landing regardless of the fact that both buttons have been pushed. After * * * the car has been automatically stopped at the given landing, and the door has been closed, all that the operator has to do is to throw the master switch to *on* position to start the car.

"In the ordinary course of operation in the Pacific elevator construction, the *starting* of the car is *done entirely* by the *operator* and the stopping is done either by the operator pushing a button in the car or the passenger pushing one at the landing."

That the Parker operation takes place in defendants' structure is also clearly apparent from the testimony of the defendants' Electrical Engineer, Ray E. DeCamp, who, on cross-examination says (R. 397) :

"In the Pacific Finance installation, completed in May, 1926, a car is started by the operator pulling a switch to the up direction.

* * * * *

"When you throw the switch over you complete the circuit which causes the elevator motor to be driven in the up direction.

* * * * *

"The pushing of a button in the car or the pushing of a button at a landing causes the car ultimately, through the various chain of mechanism and wiring that I have described, to automatically stop at any given landing."

**DEFENDANTS' "AUTOMATIC STOPPING CONTROL" ELEVATOR
INSTALLATION AT THE PACIFIC FINANCE BUILDING IN
LOS ANGELES CLEARLY UTILIZES THE PARKER "CONTROL."
THE PARKER "CONTROL" DOMINATES THAT INSTALLATION.**

This Court can be relieved of unnecessary burdens in attempting to follow through the maze of the large number of wiring diagrams used by defendants' engineers in installing its Pacific Finance elevators by using the Master's description of it.

The propriety of this cannot be questioned, as the lower court has "let it be understood that the Master's report properly described the operation of defendants' system" (R. 642).

The Master, with assistance of the witnesses who appeared before him, and from his examination of defendants' "Automatic Stopping Control" elevators, has been able, in a simple and accurate way, to separate, from the very complicated wiring diagram of defendants' installation, the Parker primary and secondary control circuits, used in defendants' installation. He finds that the Parker "Control" so dominates the rest of defendants' elevator operating and driving mechanism that the cars can be *started only* by the operator manually throwing the car switch to "on" position, and are stopped in response to buttons pushed either in the car or at any of the various floor landings, and the car thereby brought to rest, at the desired floors, in proper sequence.

It is entirely unnecessary to go into the various ramifications and details of additional electrical relays, used in defendants' installation in connection with the "accelerating, decelerating or leveling the car" (R. 582). It is likewise needless to discuss other minutia having to do with the opening and closing of the doors, as defendants did in their approximately six hundred page briefs filed with the lower court. Such discussion only leads to confusion.

When these unnecessary and multitudinous details of wirings and other minute details have been laid aside, as the Master has done in his brief description, defendants' "Control" for Electric Elevators, with its primary and secondary circuits for dominating the operation of these elevators, through controlling the rest of the mechanism in the manner taught by Parker, stand out in bold relief and are easily followed and readily understood.

MASTER'S SIMPLE AND ACCURATE DESCRIPTION OF DEFENDANTS' INFRINGING CONTROL FOR THEIR ELECTRIC ELEVATORS.

The Master uses as a basis for his description of defendants' installation plaintiff's Exhibits 4-I to 4-X, 5 and 6 (R. Vol. 2, 30-41), which are wiring diagrams used by defendants' engineers in installing their elevators, and defendants' Exhibits O-1, O-2, O-3 and O-4 (R. Vol. 3, 189-192) which are copies respectively of plaintiff's exhibits 4-I to 4-IV, inclusive, except that blue ink symbols were added to permit of cross reference to photographs, defendants' Exhibits I-1 to 9.

The Master points out so much of defendants' installation as is necessary for the determination of infringement here as follows (R. 574-580):

"*The Pacific Finance Building Installation* consists of four cars with an approximate speed of 600 feet per minute. When operated *en banc* the cars are manually started by an operator and automatically slowed down, stopped, and leveled at floor levels previously determined by the manual operation of the push buttons on the landings or in the car. The cars are hoisted and lowered by motors located in a penthouse above the shafts. The controls located in the car are a manually operated starting switch with separate up and down contacts and a series of push buttons, one for each floor (see defendants' Exhibits I-8 and I-9, R. Vol. 3, 186, 187). At each floor are two push button contacts, one up and one

down. In the penthouse above the motors is a series of drums, operated in synchronism with the movement of the car by the rope on the drum, 1 (Exhibit I-2, R. Vol. 3, 180). Looking at the photograph (Exhibit I-2, R. Vol. 3, 180), on the extreme right is the primary slow down drum carrying cam operated switches, which initiate the stopping of the car. Next to this is the secondary slow down drum carrying switches, the successive operation of which further slows the car's speed and finally transfers the control to the levelling drum 4. Drum, 4, carries the switches, the operation of which finally brings the car to a stop level with the floor and sets the brake.

"The installation includes a hall signal panel (Exhibit I-5, R. Vol. 3, 183) and Randall signal machines (Exhibit I-4, R. Vol. 3, 182), one for each elevator. The hall signal panel receives signals from the hall push buttons and transfers them to the Randall machines. Each Randall machine is synchronized with the movement of the elevator.

"The installation includes several hundred circuits with a multiplicity of circuit closing and breaking means, safety devices, and interlocks. The photographs (defendants' Exhibit 'I,' 1 to 9, inclusive, R. Vol. 3, 179-187) accurately show the external appearance of the driving and control means. Plaintiff's Exhibits 4-I and 4-X (R. Vol. 2, 30-39) are photostatic copies of the wiring diagrams used by defendants' engineers in installing the elevators. * * * In tracing circuits it is much easier to use defendants' Exhibits O-1, O-2, O-3 and O-4 (R. Vol. 3, 189-192). These are straight line diagrams in which coils and contacts are separated and shown in their relation to the circuits rather than in their physical relationship to each other. The blue ink symbols have been added to the diagrams to permit cross reference to the photographs, Exhibits 'I,' 1 to 9 (R. Vol. 3, 179-187). In following the circuits on the diagrams occasional reference to the photographs will assist in interpreting the symbols found on the diagrams. It is only with the assistance of expert engineers that the lay mind can reach an understanding of the simpler diagrams. Plaintiff's Exhibit 4-X (R. Vol. 2, 139) illustrates the extreme complexity of the whole structure.

"The full operation of the cars involves the manual closing of several switches: (1) The door closing

switch, (2) the car starting switch in the car, and (3) the car stopping switch at the landing and in the car.

"The closing of the doors preparatory to starting the car is accomplished by the operator closing the latch switch in the car, which energizes the relay 41 (Exhibit O-3, R. Vol. 3, 191) and in turn the magnet which permits the compressed air mechanism to close the door. After the operator closes the door he throws the car switch to the up position which closes the gap between the up contacts on the car switch, thus energizing relays 46 and 45. Relay 46 energizes the contactor 27 which closes the up direction circuit contacts 1 and 3. Relay 46 also energizes the brake releasing contactor 29 and relay 49. Relay 49 by its normally opened contact U-T-1, sets up a circuit through the coils of relays 46 and 45, which hold them in circuit closing position after the manual switch is returned to neutral, breaking the circuit through D-U and I-U. This can be seen in Exhibit O-3 (R. Vol. 3, 191). In section 1-E of the drawing are the manual switch contacts. In section F-1 is the contact U-T-1 (Relay 49), both of which are in the circuit with coil of relay 46. When the circuit through the wire 1-U is broken the holding circuit then runs through contact 3, lines ~~1-S~~
and *D-U-F, contact U-T-1, coil of relay ~~45~~, *(46) line N-1, coil of relay 45, line N, normally closed contact C-R-1 to L-L-2 (Section F of the Exhibit 0-3).

"Resistance is inserted which is cut out at successive stages by switches on the governor and relays 16, 18 and 30 to give a smooth start. Relay 45 when energized closes contact ~~N~~ *(M) on the main switch 48, which connects the armatures of the generator to the armature of the motor. Driving power is furnished through a Ward Leonard generator and motor set. It is needless to examine this further than to observe that a motor and generator are arranged so that by varying the strength of the generator field the amount of power delivered to the motor is varied and the speed of the elevator controlled. Defendants' Exhibit N. (R. Vol. 3, 188), Fig. 10-A, shows the power circuits, with the contacts, which are used in starting and stopping the car. The important contacts are contact M on switch 48, contacts 1 and 3 and 2 and 4 on contactors 27 and 28.

* We have made the changes indicated above by * to correct errors obvious from the context and exhibits.

To the right of the page is shown the resistance controlled by contacts on relays 16, 18, 30, 6, 7, 8, 9, 10, 11, 12, 13, 14 and the governor switches. Fig. 10-B shows the brake circuits controlled by contacts 1-B and 3*(2)B on relay 29.

"Contact M is closed when contactor 47 *(8) is energized by the closing of the circuit through its coil by relay 45. When all resistance has been cut out the car will be driven upward at full speed and the operator will have returned the operating handle to neutral. The operator is unable to stop the car by the use of the manual switch. When moving upward the contacts 1 and 3 on the contactor 27 and contact M on contactor 48 are closed; contact U-T-2 on relay 49 has energized switches 3-E and 3-O (See Sections 1-C Exhibit O-4, R. Vol. 3, 192).

"The car can only be stopped by circuits which pass through the hall or car stopping buttons. If a car button is depressed it sets up a circuit to one of the 2-U switches on the primary slow down drum. When the car approaches the floor a cam on the drum closes the switch 2-U and sets up a circuit through the coil of either the odd or even stopping circuit establishing relays $\frac{1}{2}^*(H)$ -E or $\frac{1}{2}^*(N)$ -O (numbered 4 and 5), which in turn close either relays O or E, which are self-holding. At the same time a small amount of resistance is thrown into the main motor circuit. Thereafter the movement of the car transmitted through the secondary drum closes either the 3-E or 3-O switches operating in sequence the relays 6, 7, and 8, which in turn are followed by timed relays, 9, 10, and 11, to cut in successive stages resistance into the motor circuit and bring the car to a slow speed. The second 3-O switch, 3-O-2, energizes the coils of the switches 4-M-S on the leveling drum. The *first* *(last) of these switches to ride off the cam on the drum cuts the motor circuit at the 1 and 3 contacts of the direction switch 27 and sets the brake. The car is then about three-quarters of an inch from the landing and it normally stops approximately at the landing. If the car rides past the landing one of the 4-M-S switches on the leveling drum sets up a circuit to bring it back to the landing. Since the car was started, circuit establishing relay 45 has been held closed, contact U-T-1 on relay 40 *(9) in turn keeping contacts 1 and 3

* We have made the changes indicated above by * to correct errors obvious from the context and exhibits.

on contactor 27 closed. At the time the 4-M-S switches are energized by the back contact on relay 10 a circuit is set up which holds the direction contactor 27 independent of the circuit set on starting. This first holding circuit is broken when the last 4-M-S switch rides off the cam. When relay 10 closes, the magnets of the switches on the leveling drum are energized and later relay 44 transfers control to these switches. The further movement of the leveling drum ~~closes~~ *(opens) the switches which breaks the circuits and stops the car. Two or three seconds after the car has stopped, the switch connection M between the generator and the motor falls out. During the stopping operation the doors are automatically opened by a relay in series with one of the stopping circuits. Stopping from the hall buttons is a more complicated operation. The circuit set up when a hall button is depressed is relayed to the first car to approach the landing in the desired direction. In order to accomplish this the hall button circuit closes a self-holding relay on the main signal panel, which in turn energizes a corresponding contact on each Randall signal machine. Thus a circuit is set up to each elevator. As the contactor on the Randall machine moves in synchronism with the elevator car the first car to approach the landing completes the circuit through the Randall machine and the relay P-L-1. Relay P-L-1 completes through its contact P-L-3 a circuit to the contact 2-U-2 on a primary drum switch. When the drum movement closes the 2-U switch a circuit is completed to either the odd or even, establishing relays H-E or H-O. From this point on the stopping operation is the same as in the case of a car button stop. When the door is closed preparatory to again starting the car the relay in the signal panel is reset to open position. If another car comes within the signal range for that floor before the door of the first car is closed the second car also will be stopped. Separate odd and even stopping circuits are provided due to the fact that the decelerating range is in excess of the distance between floors. Down operation is the same as up operation using separate circuits, with the exception of three stages of resistance used in both up and down stopping. The complete installation includes many hall signal, car annunciator, emergency

stop, and safety device circuits, the consideration of which would not be pertinent."

From the Master's brief description of defendants' installation and his conclusions with respect thereto (R. 584-586), it will be seen that the complicated mechanism of defendants' structure is so *dominated* and *controlled* by the Parker invention that the car must be *started* "*entirely and singly*" by the car switch operable "*only from within the car*" and that the pressing of push buttons in the car or at any landing causes electrical means to be set into operation which brings about the *automatic* slowing down and stopping of the car at the desired floor level, as Parker clearly contemplated should be done (Patent, p. 5, lines 23-30), and that this is accomplished through the use of the Parker invention.

It will also be seen that the defendants' elevators which are dominated by the Parker "*Control*" correspond closely to the Otis "*Signal Control*," which defendants' engineers had previously seen.

The defendants' elevators are controlled by the Parker invention and utilize his combination of

- (a) an electrical circuit controlled only by a car switch to start and run the car;
- (b) a holding circuit set up by the operation of the car switch which maintains running circuits independent of the car switch, so that the operating handle of the car switch may be returned to "*off*" position after the car is started without stopping the car; and
- (c) secondary circuits provided with manual closing means (push buttons) located in the car and at each landing and automatic circuit closing means synchronized with the movement of the car for initiating the slowing down and stopping of the car at the desired landings.

The Master very properly says (R. 567):

"Inasmuch as the means which Parker discloses for holding the running circuits closed independent of the

manual switch and the means for releasing the running circuit to stop the car automatically has no antecedent in the elevator art, the patent is entitled to a range of equivalents that will cover any other means which accomplished the same result in substantially the same way."

Winans v. Denmead, 15 How. 330.

Kings County, etc. v. U. S. Cons. etc. 182 Fed. 59
(C. C. A. 9).

"The novelty found in the Parker combination does not depend upon the particular point where the braking means are located but rather in the inter-relation of running and stopping circuits with circuit closing and braking means to accomplish the stopping of the car."

(R. 581-582) :

"The defendants used in their installation a highly developed means of automatically accelerating, decelerating, and leveling the elevator car. This does not constitute a difference between the structures of the patent and the defendants' structure, in that Parker specified no means of accelerating, decelerating, or leveling the car but relies upon the art to supply some appropriate means. As previously observed, the art could at the time of his disclosure, supply such means. That the defendants used a system which may possess great merit or invention over previous system is immaterial. In *Stebler v. Riverside*, 205 Fed. 735, the Circuit Court of Appeals for this Circuit held that any further invention in the infringing structure is immaterial if the defendants have also used the invention of the patent in suit.

It is reasonable to assume from the patent that the stopping should initiate sufficiently in advance of the landing to permit the timely operation of the decelerating and stopping mechanism. The patentee so stated (page 5, lines 23 to 30)."

(R. 583) :

"Parker teaches the use of automatic stopping circuits to initiate the stopping of the car. He depends upon the art to supply the mechanism necessary to complete the stopping operation."

DECISIONS CLEARLY SUPPORT MASTER'S LIBERAL INTERPRETATION OF THE PARKER CLAIMS. WHETHER MORE OR LESS COMPLICATED MECHANISM IS DOMINATED BY THE PARKER "CONTROL" IS IMMATERIAL.

Assume for the purposes of argument that defendants have incorporated complicated arrangements and devices in their elevators (whether previously known or not). This gives them no license to utilize Parker's pioneer "Control". Neither is it an answer to the charge of infringement that in seizing the Parker concept they did not literally follow the particular circuits and arrangements of parts diagrammatically shown by Parker to illustrate his invention. When defendants appropriated Parker's "Control" and so utilized it in their elevators as to accomplish its identical results, they infringed, regardless of their deviations from the diagrammatic showing of the Parker patent.

Morley Machine Co. v. Lancaster, 129 U. S. 263, 273.

Paper Bag Patent Case, 210 U. S. 405.

Hildreth v. Mastoras, 257 U. S. 27.

Stebler v. Riverside Heights Orange Growers' Assn. (C. C. A. 9) 205 Fed. 735.

Angelus Sanitary Can Mach. Co. v. Wilson, 7 F. (2d) 314 (C. C. A. 9).

Butler v. Burch, 23 F. (2d) 15, 27 (C. C. A. 9).

In the latter case this court said (p. 27) :

" 'Where a combination patent marks a distinct advance in the art to which it relates, as does the appellant's invention here, the term "mechanical equivalent" should have a reasonably broad and generous interpretation, and protection against the use of mechanical equivalents in a combination patent is governed by the same rules as patents for other inventions. *Imhaeuser v. Buerk*, 101 U. S. 647, 25 L. Ed. 945. The fact, if it be a fact, that the infringing machine is superior, more useful, and more acceptable to the public than that of the appellant, does not avoid

infringement, so long as the essential features of the appellant's patented machine are used, unless its superiority is due to a difference in function or mode of operation or some essential change in character. *Morley Machine Co. v. Lancaster*, 129 U. S. 263, 9 S. Ct. 299, 32 L. Ed. 715; *Hoyt v. Horne*, 145 U. S. 302, 12 S. Ct. 922, 36 L. Ed. 713; *Lourie Implement Co. v. Lenhart*, 130 F. 122, 64 C. C. A. 456; *Diamond Match Co. v. Ruby Match Co.* (C. C.) 127 F. 341; *Whitely v. Fadner* (C. C.) 73 F. 486; *Smith Cannery Machines Co. v. Seattle-Astoria I. W.* (C. C. A.) 261 F. 85, 88.

" 'Defendants therefore cannot escape infringement by adding to or taking from the patented device by changing its form, or even by making it somewhat more or less efficient, while they retain its principle and mode of operation and attain its results by the use of the same or equivalent mechanical means. *Lourie v. Lenhart*, 130 F. 122, 64 C. C. A. 456; (*Letson*) *Letson v. Alaska Packers' Association*, 130 F. 129, 64 C. C. A. 463; *Eck v. Kutz* (C. C.) 132 F. 758. By varying the encircling means, but producing the same results in substantially the same manner, there is infringement. Both physical and mechanical encircling, with centering, are found in defendants' machine. *Union Paper Bag Machine Co. v. Murphy*, 97 U. S. 120, 24 L. Ed. 935; *Kinloch Telephone Co. v. Western Electric Co.*, 113 F. 659, 51 C. C. A. (369) 362; *Auto Pneumatic Action Co. v. Kindler & Collins* (C. C. A.) 247 F. 323, *supra*; *Pangborn Corporation v. Sly Mfg. Co.* (C. C. A.) 284 F. 217; *Angelus Sanitary Can Mach. Co. v. Wilson* (C. C. A.) 7 F. (2d) 314, 318.' "

Defendants' theory below that it had escaped infringement because it divided up and rearranged parts of the particular circuits shown in the Parker patent (which illustrated his inventive pioneer concept) is well answered by this Court in *Kings County Raisin & Fruit Co. v. U. S. Consolidated Seeded Raisin Co.*, 182 Fed. 59, at page 63, where the court said:

"In any view, the Pettit machine being the first successful machine to accomplish a new result, the claims of the patent are clearly entitled to a broad and liberal construction, and to the benefit of the doctrine of

equivalents. Pettit was not only the first to invent a built-up impaling cylinder, but he was the first to invent and construct a raisin seeding machine embodying the principle upon which all such machines must necessarily operate. Infringement is not avoided by the fact that one of the integral elements of his built-up impaling roll is by the appellants separated into two or more distinct parts, so long as the function and operation remain substantially the same. *Kalamazoo Ry. Supply Co. v. Duff Mfg. Co.*, 113 Fed. 264, 51 C. C. A. 221; *Bundy Mfg. Co. v. Detroit Time-Register Co.*, 94 Fed. 524, 36 C. C. A. 375; *H. F. Brammer Mfg. Co. v. Witte Hardware Co.*, 159 Fed. 726, 86 C. C. A. 202."

It may be, as the lower court said (R. 643) that "wonderful ingenuity is displayed in the highly complicated slow-down and floor selector mechanisms used by the defendants" (although this was largely copied from plaintiff's previous elevators) but this is no excuse for defendants' infringement. Certainly the defendants should not be given a free license to use the Parker concept and "Control," as they were by the lower court, simply because they have used, in connection with that pioneer concept and "Control," a mass of intricate circuits and other mechanisms having to do with the operation of a bank of cars, with deceleration, signalling and floor leveling. That the Parker "Control" could be and was so used in connection with these as to dominate them for accomplishing his pioneer concept emphasizes the importance and scope of his invention. The Supreme Court in the well-known and oft-quoted and approved decision in the case of *Cochrane v. Deener*, 94 U. S. 780, speaking through Mr. Justice Bradley in disposing of a similar contention said at page 787:

"But it cannot be seriously denied that Cochrane's invention lies at the bottom of these improvements, is involved in them, and was itself capable of beneficial use, and was put to such use. It had all the elements and circumstances necessary for sustaining the patent, and *cannot be appropriated by the defendants, even*

though supplemented by and enveloped in very important and material improvements of their own."
(Italics ours.)

**CLAIMS OF PARKER PATENT 3, 22, 29, 40, 41 AND 65 IN SUIT
APPLIED TO DEFENDANTS' INSTALLATION.**

We have shown that the defendants' elevators utilize the Parker "Control for Electric Elevator" and in so using it have so operated their elevators as to accomplish its highly advantageous results.

The defendants' "Automatic Stopping Control" elevators are likewise clearly within the language and proper scope of each of the claims held valid and infringed by the Master, *i. e.*, 3, 22, 29, 40 and 65. Claim 41, likewise held valid by the Master, is also infringed.

In applying and interpreting each of these claims the Court should have in mind Parker's pioneer concept:

(a) That the Parker invention provides a radically new "*Control*" for an electric elevator in which an attendant is stationed in the car, the *starting* of the car being *entirely under the control of the attendant* and that once started the car will continue to run after the car switch handle is moved to off position, whereas the *stopping* of the car at the landings is *attained automatically by pushing buttons either in the car or at the landings*.

(b) That in any installation using the Parker invention, the *starting cannot be done from the push buttons but only from the car switch*.

(c) That the vice-president and chief engineer of defendant, Llewellyn Iron Works, Mr. Baruch, *admits* that in defendants' installation in the Pacific Finance Building the *starting of the car is controlled entirely by the operator within the car* (R. 133-134), and that when the operator from within the car pushes a button corresponding to any floor, "the car automatically stops at the floor which is indicated without having the operator do anything else, and when any passenger at any landing pushes either the up or down button, the car is automatically stopped without the operator in the car having to do anything."

"Neither the passenger outside the elevator nor the operator in the car can start the car" in normal operation "except the operator within the car may use the master switch for starting it"; and that

"In the ordinary course of operation in the Pacific elevator construction, the *starting* of the car is *done entirely* by the operator, and the stopping is done either by the operator pushing a button in the car or the passenger pushing one at the landing."

With the appreciation of the entire novelty of the Parker concept and with the admissions that the defendants' "Automatic Stopping Control" elevators operate in the same way and accomplish the same results in operation as Parker, it becomes only necessary to apply the claims of the Parker patent here asserted to defendants' structure.

For the purpose of comparison, the elements of the Parker patent corresponding to the elements of the claims will be pointed out in discussing the claims.

In applying these claims to defendants' installation, we refer to defendants' exhibits O-1, O-2, O-3 and O-4 (R. Vol. 3, 189-192), which both plaintiff and defendants agree correctly represent defendants' installation in the Pacific Finance Building, and which the Master used in finding infringement.

On Appendix Plate III we have shown the

"STARTING and RUNNING CIRCUIT"

"STOPPING CIRCUIT for CAR BUTTON"

"STOPPING CIRCUIT for UP HALL BUTTON"

shown in defendants' exhibits O-1 to O-4, segregated from the rest of its complicated wiring. The segregated circuits are identical with those on defendants' exhibits O-1 to O-4, as will be found by comparison.

The circuits on defendants' wiring diagrams (exhibits O-1 to O-4) are shown in what is commonly known as "straight line" form, in which the parts of the various mechanisms, such as the coils and contacts

of the various switches are shown in their proper places in the circuits but are physically separated so as to permit the various circuits to be straightened out to extend, in so far as possible, directly across the sheet from one supply line to the other and thus avoid the numerous crossings and re-crossings of the wires. The circuits on Plate III, being taken from defendants' exhibits O-1 to O-4, are therefore of the same "straight line" form. In order to aid the following of the circuits, the coils and contacts of the various switches, wires, and so forth have been labeled as such in the circuits on Plate III.

On Appendix Plate IV we have shown the circuits of Appendix Plate III with the parts of the various mechanisms such as coils and contacts of the various switches shown diagrammatically in their physical relationship. This enables one not familiar with the use of straight line form diagrams to more readily perceive the operative relationship of the various coils, contacts and switches in the different circuits. We have, in Plate IV, also labeled the operative parts as in Plate III. For further simplification we have left in the Appendix to this Brief "Plaintiff's Exhibit 16" (R. 142) which as the master says (R. 575) "is argumentative". Still, taken in connection with the evidence of Mr. Crabbe (R. 152-158), it enables one to readily perceive from this schematic drawing, that defendants' installation utilizes, and is dominated by Parker's "Control."

CLAIM 3.

Claim 3 reads as follows:

"The combination with a guided movable body of an electrical controlling circuit, a switch on said body manually operable for closing said circuit, means holding said switch in circuit closing position, and selective means for actuating the release of said switch holding means to stop said body at one or more predetermined

points in the line of its travel, said selective means comprising a manually operable circuit closer to be actuated prior to the arrival of the body at a selected stopping point and an automatic circuit closer actuated upon the arrival of the body at said selected stopping point."

Analyzing claim 3 we find:

(1) **A guided movable body.**

This is the elevator car shown in the Parker patent, and is the elevator car in defendants' installation.

(2) **An electrical controlling circuit.**

This is the starting and running circuit which is completed, upon the manual operation of the car switch, to cause power to be applied to the elevator motor to start and run the car.

In the construction of the Parker patent, in up car travel, this circuit is through the car switch (master control switch) to the up coil 16 of the direction or pole changing switch. The completion of this circuit from line 12, through wire 14, car switch contacts 10 and 11 bridged by contact plate 9, wire 15, coil 16, to line 13, energizes coil 16 of the direction switch which thereupon closes its contacts 20-23 and 21-24 to cause power to be applied to the elevator hoisting motor, by connecting the hoisting motor armature 17 to supply lines 12 and 13. This starts the car in the up direction.

In defendants' structure, in up car travel, this circuit is through the car switch, the coil of up direction switch energizing relay 46 and the coil of circuit establishing relay 45, the operation of which causes the operation of up direction (or pole changing) switch 27 and main switch 48 respectively (defendants' exhibit O-3 and "STARTING and RUNNING CIRCUIT", Appendix Plates III and IV). The

coils of relays 46 and 45 are energized from line LL1, through wire DU, the car switch, wire 1U, coil of relay 46, wire 3, coil of relay 45, wire N, contacts CR1 of anti-plugging relay 35, through various safety devices, to line LL2. Relay 45, upon energization of its coil, operates to close its contacts MD1 to effect the energization of the coil of switch 48, current flowing from line LL1, through contacts MD1 of relay 45, coil of residual killing switch 26, coil of main switch 48, contacts DS of door sequence relay 40 and the various safety devices, to line LL2. Relay 46, upon energization of its coil, operates to close its contacts UO1 to effect the energization of the coil of switch 27, current passing from line LL1, through the gate and door switches, contacts LVA of leveling switch connecting relay 44, contacts UO1 of relay 46, wire 10, up limit switch, wire 11, coil of up direction switch 27, coil of up holding relay 49, coil of brake switch 29, contacts M of main switch 48, through certain other safety devices and the previously mentioned safety devices, to line LL2. Up direction switch 27, upon energization of its coil, operates to close its contacts #1 and #3 (shown on Appendix Plate IV but not on Plate III) to cause power to be applied to the elevator hoisting motor, by connecting to supply lines LL1 and LL2 the field winding of the Ward-Leonard generator which applies power to the armature of the hoisting motor. This starts the car in the up direction.

(3) **A switch on said body manually operable for closing said circuit.**

This is the car switch in the Parker patent, and is the car switch in defendants' installation. In each case, the switch is located within the elevator car.

In the Parker patent, the car switch, referred to as the master control switch and designated by the numeral 1, is

provided with an operating lever 3, which is moved to the right to start the car in the up direction and to the left to start the car in the down direction. Operation of lever 3 to the right to effect up car travel moves contact plate 9 into engagement with contacts 10 and 11, which completes the circuit for up coil 16, causing the operation of the direction switch.

In defendants' construction, the car switch is shown on exhibit O-3. It has no designating numeral but is referred to at the left as the "car controller". Defendants' car switch is provided with a handle for operating the switch, this handle being moved to the left to start the car in the up direction and to the right to start the car in the down direction. Operation of the car switch to the left to effect up car travel moves a contact segment into engagement with a stationary contact, which completes the circuit for the coils of relays 46 and 45, causing the operation of the up direction switch.

(4) Means holding said switch in circuit closing position.

This is the circuit and mechanism which maintains the "electrical controlling circuit" closed independent of the car switch and therefore maintains the direction switch in operative condition, permitting the return of the car switch operating handle to "off" position without interrupting the running of the car.

In Parker, movement of the car switch operating handle to the right to bridge contacts 10 and 11 by contact plate 9, in addition to effecting the energization of up coil 16 of the direction switch, effects the energization of the coil 32 of up holding magnet 31, current flowing from line 12, through wire 14, car switch contacts 10 and 11, coil 32 of up holding magnet 31, wire 33, to line 13. Magnet 31, by holding contact plate 9 in position bridging contacts 10 and 11, acts to maintain completed the control circuit through up coil 16, thereby maintaining the direction switch operated so that

the attendant may release the operating handle of the car switch to "off" position without interrupting the running of the car.

In defendants' installation, movement of the car switch operating handle to the left to cause the operation of relay 46 (defendants' exhibit O-3 and "STARTING AND RUNNING CIRCUIT," Appendix Plates III and IV), in addition to effecting the energization of the coil of up direction switch 27, effects the energization of the coil of up holding relay 49, the coil of relay 49 being connected in series with the coil of up direction switch 27. Up holding relay 49, upon operation, closes its contacts UT1 which act to maintain completed the control circuit through the coils of relays 46 and 45, thereby maintaining the up direction switch operated so that the attendant may release the operating handle of the car switch to "off" position without interrupting the running of the car. The coil of relay 46 is maintained energized by contacts UT1 of up holding relay 49 when the car switch handle is in "off" position by current flowing from line LL1, through switch 3, wire DUF, contacts UT1 of relay 49, coil of relay 46, wire 3, coil of relay 45, wire N, contacts CR1 of relay 35, through the various safety devices, to line LJ2. Contacts UT1 of up holding relay 49 are maintained closed with the car switch in "off" position since relay 46 maintains the coil of up holding relay 49 energized.

(5) Selective means for actuating the release of said switch holding means to stop said body at one or more predetermined points in the line of its travel, said selective means comprising a manually operable circuit closer to be actuated prior to the arrival of the body at a selected stopping point and an automatic circuit closer actuated upon the arrival of the body at said selected stopping point.

This element of the claim includes the push buttons in

the car or the push buttons at the floors and the various switches, circuits and mechanisms which act automatically to cause the stopping of the car at any floor for which, in case of car buttons, a button in the car has been pressed or, in case of hall buttons, at which a button has been pressed. The push buttons control circuits which are completed as the car approaches the floors for which the buttons are provided. The completion of these circuits accomplishes two results:

- (a) The initiation of the stopping of the car, which is brought to rest level with the floors for which the buttons are provided.
- (b) The release of the holding means whereby the car switch must be operated again to start the car after each stop.

Assume in the Parker system that the car has taken on a passenger at the ground floor who desires to be carried to the fourth floor. The passenger, upon entering the car, informs the car attendant of his desired destination. The attendant thereupon presses the push button a4 for the fourth floor. This sets up a circuit as follows: line 12, through wire 15, car switch contacts 10 and 11, wire 35, coil e4, push button contacts d4-b4, through post c4, wire h4, to contact f4 of the selector. Contacts d4-b4 closed by the push button remain closed, thereby maintaining this circuit closed up to selector contact f4. As the car approaches the fourth floor in the up direction, stopping is initiated as follows: The selector contact brush 34, which is driven in synchronism with the car, engages stationary contact f4. This completes the circuit set up by the push button a4 from contact f4 through brush 34, current supply ring g, wire 36, coil 37 of up holding magnet 31, wire 38, to line 13. The completion of this circuit energizes coil 37 which neutralizes the magnetic action of coil 32 to release contact plate 9 from contacts 10 and 11. This releases the holding means. It also breaks the circuit for up coil 16 of the direction

switch. The direction switch opens contacts 20-23 and 21-24. Upon the opening of these contacts the car slows down and is thereafter brought to rest level with the fourth floor.

Similar operation takes place in the Parker system when a push button at a floor is pressed. Assume that an intending passenger standing at the third floor has pressed the up push button 13 at that floor. This sets up a circuit as follows: line 12, through wire n3, coil m3, post k3, push button contacts j3-l3, wire o3, contacts p3-b3, post e3, wire h3, to selector contact f3. Contacts j3-l3 closed by the push button remain closed so that upon the engagement of selector brush 34 with stationary contact f3 as the car approaches the third floor in the up direction, this circuit is completed, contact f3 being connected to line 13 as follows: from contact f3 through brush 34 and the current supply ring g, wire 36, coil 37 of up holding magnet 31, wire 38, to line 13. As in the case of a stop in response to a car button, the completion of this circuit releases the holding means and initiates stopping of the car.

Referring to defendants' structure, assume that the car has taken on a passenger at the ground floor who desires to be carried to the seventh floor. The passenger, upon entering the car, informs the car attendant of his desired destination. The attendant thereupon presses car push button 7 for the seventh floor (defendants' exhibit O-2 and "STOPPING CIRCUIT for CAR BUTTON", Plates III and IV). This sets up a circuit as follows: from line LL1, through switch 3 to wire X (see also defendants' exhibit O-3), car nonstop button, wire C1, the contacts of push button 7, wire C7, to the seventh floor up switch 2U1 of the selector, termed by defendants "automatic slow-down and stopping machine". The contacts closed by the pressing of the seventh floor car button remain closed, thereby maintaining this circuit closed up to selector seventh floor switch 2U1.

As the car approaches the seventh floor in the up direction, stopping is initiated in the following manner: A selector cam, which is driven in synchronism with the car, closes seventh floor switch 2U1. This completes the circuit set up by the seventh floor car button from switch 2U1, wire YOU, coil of slow-down relay 5, wire YU, resistance, wire YUU, contacts UO2 of relay 46, contacts EA of relay 1, contacts OA of relay 2, wire Y, switch 3, to line LL2 (see also defendants' exhibit O-3). The coil of relay 5, being energized, closes its contacts HO to energize the coil of slow-down retaining relay 2 from line LL1, through switch 3, wire X, contacts RCA of reset relay 24, wire X1, coil of relay 2, contacts HO of relay 5, resistance, wire Y, switch 3, to line LL2, and relay 2, in turn, closes its contacts O2 (defendants' exhibit O-3) to energize the coil of generator field weakening switch 21 from line LL1, through contacts MR of relay 15, contacts O2 of relay 2, coil of switch 21, coil of damping control relay 20, through the safety devices, to line LL2. Switch 21, in turn, opens its contacts STA, causing the car to slow-down. After several steps of slow down, the leveling switch, to the control of which the energization of the coils of holding relay 49 and direction switch 27 has been transferred by the closing of contacts LV and the opening of contacts LVA of leveling switch connecting relay 44 as one of the steps of slow-down takes place, opens its contacts (defendants' exhibit O-4 and "STARTING and RUNNING CIRCUIT", Plates III and IV) to de-energize the coil of holding relay 49, thus releasing the holding means. The coil of direction switch 27 is also de-energized, which opens contacts #1 and #3 and the car is brought to rest level with the seventh floor.

Similar operation takes place in defendants' installation when a push button at a floor is pressed. Assume that an intending passenger standing at the third floor has pressed

the up hall push button H3U at that floor (defendants' exhibit O-1 and "STOPPING CIRCUIT for UP HALL BUTTON", Plates III and IV). This button acts through up third floor signal relay 4 and car flash relay 54 in setting up a circuit to the selector instead of directly as in the case of defendants' car buttons. The pressing of the button energizes the actuating coil of relay 4 from line L1 of a low voltage source, through the coil of night bell relay 53, push button H3U, actuating coil of relay 4, wire N, to line L2 of this source. Relay 4, upon operation, engages contacts HR3U-1 and HR3U-3, the engagement of contacts HR3U-1 connecting the holding coil of relay 4 to lines L1 and L2 through contacts R3U of up third floor reset relay 17. Thus contacts HR3U-3 of relay 4 are maintained closed electromagnetically instead of by a latch as in the case of defendants' car buttons. As the car approaches the third floor in the up direction, stopping is initiated in the following manner: The brushes B of the Randall signal machine, which are driven in synchronism with the car, complete the circuit for the coil of car flash relay 54 from line L1 through contacts HR3U-3 of relay 4, the signal segment, brushes and car flash strip of the signal machine, coil of relay 54 and contacts NS3 of non-stop relay 58, to line L2. (This circuit is shown on Plates III and IV but the portion of the circuit up to the signal machine is not shown on defendants' exhibits O-1 to O-4. This circuit for the floor relays for the down push buttons at floors 5, 6, 7 and 8 may be seen on defendants' exhibit P-2.) Relay 54, upon operation, engages its contacts PL3 in a circuit to selector up switch 2U2 for the third floor (defendants' exhibit O-2). Thereafter, the third floor selector switch 2U2 is closed by a cam on the selector, completing a circuit for the coil of slow-down relay 5 as follows: from line LL1, through switch 3, wire X, contacts PL3 of relay 54, contacts DOA

of down direction switch energizing relay 47, switch 2U2, wire YOU, coil of relay 5, wire YU, resistance, wire YUU, contacts UO2 of relay 46, contacts EA of relay 1, contacts OA of relay 2, wire Y, to line LL2. The completion of this circuit causes the car to be brought to a stop at the third floor in exactly the same manner as described for stopping the car at the seventh floor in response to the seventh floor car button.

PARKER "CONTROL" ACCOMPLISHES A RADICALLY NEW RESULT. CLAIM 3 AND EACH OF THE OTHER CLAIMS CLEARLY COVERS DEFENDANTS' "CONTROL."

As there is no "Control" for electric elevators in the prior art which has in its concept, or so functions and operates as to have the *starting* of the car "entirely and singly" in the manual control of the operator, and the stopping automatically attained in sequence at the different floors in response to push buttons located in the car and at the different floors, claim 3 and each of the other claims is entitled to a liberal interpretation. They should each be so construed as to cover not only the identical mechanism shown in the Parker diagrammatic drawings, but any equivalent means which accomplishes the results of the Parker concept.

To illustrate: It is immaterial whether the switch which holds the electrical controlling circuit, for starting and running the car, closed after the car switch on the elevator has been manually operated for closing that circuit, is secured to the car, or is in the penthouse, provided that the car switch when thrown to "on" position completes the starting and running circuit, and the running circuit is maintained closed when the car switch handle is returned to "off" position.

In the Parker patent when the car switch handle is moved to "on" position, it throws a switch which completes

the starting and running circuit, and when thus completed the running circuit is maintained closed when the car switch handle is returned to "off" position and the car continues to run. The car is not thereafter stopped by the operation of the car switch handle but in response to push buttons located either in the car or at the landings.

In defendants' structure exactly the same thing happens, the only difference between the two structures being that in the case of the Parker patent, the switch which is directly acted upon by the car switch handle is so held as to keep the running circuit completed, whereas in defendants' installation other switches in the running circuit are maintained closed for accomplishing the same result.

Claim 3 of the Parker patent itself provides for a switch (car switch) on the body manually operable for closing the electrical controlling circuit (the starting and running circuit), and when this switch is thrown to "on" position, the electrical controlling circuit is completed and power is delivered to the elevator motor, and the car starts to run.

In defendants' structure there is likewise a switch (car switch) on the body manually operable for closing the electrical controlling circuit (the starting and running circuit), and when this switch is thrown to "on" position, the electrical controlling circuit is completed and power is delivered to the elevator motor, and the car starts to run.

In defendants' structure, the movement of the operator's car handle to "on" position in the car not only closes the switch in the car, but also closes other switches in the electrical controlling circuit located in the penthouse, and these latter switches have means for holding them in circuit closing position, so that power is delivered to the elevator motor through the electrical controlling circuit after the car switch handle in defendants' installation has been returned to "off" position, and the car will continue

to run until automatically stopped in response to buttons pushed either in the car or at any landing.

The mere fact that defendants' electrical controlling circuit, for starting and running the car, has more switches in it than shown in the diagrammatic drawings of the Parker patent, and the fact that they locate the switches and magnets for maintaining the running circuit closed, in the penthouse, instead of on the car body, cannot permit defendants to escape the charge of infringement. The means for holding either of the switches in circuit closing position accomplishes exactly the same result, to wit, the maintenance of the electrical controlling circuit after the car switch handle has been moved to "off" position, so that the car continues to run. The Master was clearly right in his conclusion (R., 581) that the holding means used by the defendants is equivalent to the holding means specified by Parker.

In the Parker patent, as well as in defendants' structure, the car is stopped automatically in response to push buttons as distinguished from stopping by means of the operation of the car switch.

The fact that defendants used in their installation a highly developed means of accelerating, decelerating and leveling the elevator car in nowise affects the question here involved, for unless these structures are harnessed by the Parker "Control," which requires that the car be started singly and only from the car switch, and stopped automatically in response to push buttons located in the car or at the landings, the defendants' structure could not accomplish the results of the Parker invention.

From the Parker disclosure it is plain that he intended to use his "Control" in connection with various elevator equipment, and "that the stopping should initiate sufficiently in advance of the landing to permit the timely op-

eration of the decelerating and stopping mechanism." (R., 582, Patent p. 5, lines 23-30.)

When Parker calls in claim 3 for selective means for actuating the release of the switch holding means to stop the car at one or more predetermined points in its line of travel, both his patent and his testimony plainly show that he teaches the use of automatic stopping circuits to initiate the stopping of the car, whereby the car will automatically come to the desired landing, and that after this stop has been made, the car can only again be started by the operator throwing the car switch to "on" position.

Throughout the specifications and the testimony of Parker himself, it is plain that he contemplated the timing and arrangement of the automatic secondary closing means to allow for the timely operation of the usual braking mechanism to overcome the momentum of the car, so that the ultimate point at which the car comes to rest will be in proper alignment with the floor level. (Patent, p. 5, lines 23-30.)

Thus Parker plainly indicates that the automatic circuit closer is to be operable at such time and at such selected points as to enable the proper slowing down and braking mechanism to be utilized in stopping, which any engineer knows must be done. To interpret claim 3 otherwise would be to read it contrary to the entire disclosures of Parker and inconsistent with all elevator practice.

Claim 3 of the reissue patent is exactly the same as original claim 3. Its infringement is clear, and given only a restricted range of equivalents, while it is entitled to a liberal range, it clearly includes the defendants' structure, which operates in the same manner and accomplishes the same result as the Parker concept disclosed in his patent.

Parker, a non-member of the elevator industry, having "taught the art a new means of "Control" that solves many

old problems," and "judged by the results" having made "a radical step forward," as found by the Master (R. 574) should not be limited to the specific disclosures of his diagrammatic drawing.

Had the lower court appreciated, as did the Master after hearing the witnesses, the great inventive advance over the prior art, he would of necessity have held claim 3 and each of the other claims infringed by the defendants' structure.

CLAIM 22.

Claim 22 reads as follows:

"A control system for an elevator car comprising a plurality of control means, one for each of a plurality of landings, operable from without the car to cause the stopping of the car at the landings for which the control means are operated, and only one control means for causing the starting of the car, said one control means being operable only from within the car."

Claim 22 defines a control system for an elevator car comprising, in combination:

- (1) **A plurality of control means, one for each of a plurality of landings, operable from without the car to cause the stopping of the car at the landings for which the control means are operated.**

This element of the claim includes the push buttons at the landings, switching mechanism controlled by car movement, circuits, switches and other apparatus, which are controlled by the push buttons and by this mechanism, whereby the car is automatically brought to a stop at landings at which push buttons have been pressed. "Operable from without the car", as specified in this claim, means that the push buttons, included as a part of this portion of the claim, are located at the landings.

Assume in the Parker structure that an intending passenger at the third floor has pressed the up push button i3

at that floor. This sets up one of the circuits included in this element of the claim, which extends from line 12 through wire n3, coil m3, post k3, push button contacts j3-l3, wire o3, contacts p3-b3, post c3, wire h3, to selector contact f3. As the car approaches the third floor in the up direction, the selector completes this circuit, the selector contact brush 34, driven in synchronism with the car, engaging stationary contact f3 and connecting it to line 13 as follows: from contact f3 through brush 34, current supply ring g, wire 36, coil 37 of up holding magnet 31, wire 38, to line 13. The completion of this circuit energizes coil 37, which neutralizes the magnetic action of coil 32 to release contact plate 9 from contacts 10 and 11. This breaks the circuit for up coil 16 of the direction switch. The direction switch opens its contacts, whereupon the car slows down and is thereafter brought to rest level with the third floor.

Assume that in defendants' structure an intending passenger standing at the third floor has pressed up hall push button H3U at that floor (defendants' exhibit O-1 and "STOPPING CIRCUIT for UP HALL BUTTON", Plates III and IV). The pressing of the button energizes the actuating coil of relay 4 from line L1, through coil of relay 53, push button H3U, coil of relay 4, to line L2. Relay 4, upon operation, engages contacts HR3U-1 and HR3U-3, the engagement of contacts HR3U-1 rendering the relay self-holding by energizing its holding coil. As the car approaches the third floor in the up direction, stopping is initiated in the following manner: The Randall signal machine completes the circuit for the coil of relay 54 from line L1 through contacts HR3U-3 of relay 4, the segment, brushes and strip of the signal machine, coil of relay 54 and contacts NS3 of relay 58, to line L2. The energization of the coil of relay 54 closes contacts PL3 in the circuit to selector up switch 2U2 for the third floor.

The selector cam thereafter closes switch 2U2 to energize the coil of slow-down relay 5, as follows: from line LL1, through switch 3, wire X, contacts PL3 of relay 54, contacts DOA of relay 47, switch 2U2, wire YOU, coil of relay 5, wire YU, resistance, wire YUU, contacts UO2 of relay 46, contacts EA of relay 1, contacts OA of relay 2, wire Y, to line LL2. The energization of the coil of relay 5 closes contacts HO to energize the coil of slow-down retaining relay 2 from line LL1, through switch 3, wire X, contacts of reset relay 24, wire X1, coil of relay 2, contacts HO of relay 5, resistance, to wire Y, and the energization of the coil of relay 2, in turn, closes contacts O2 (defendants' exhibit O-3) to energize the coil of generator field weakening switch 21 from line LL1, through contacts MR of relay 15, contacts O2 of relay 2, coil of switch 21, coil of relay 20, through the safety devices, to line LL2. Switch 21 opens its contacts STA causing the car to slow down, and after several steps of slow-down, the car is brought to rest level with the third floor.

(2) Only one control means for causing the starting of the car, said one control means being operable only from within the car.

This is the control means by which, and by which alone, the circuit to start the car is completed.

In the Parker patent, movement of the operating handle of the car switch to one of its "on" positions closes a circuit to start the car. The car switch is located within the elevator car and is the only control means provided for starting the car. For up car travel, the operating handle 3 of the car switch is moved to the right to bridge contacts 10 and 11 by contact plate 9. This energizes up coil 16 of the direction switch as follows: from line 12, through wire 14, contacts 10 and 11, wire 15, coil 16, to line 13. The direction switch closes its contacts 20-23 and 21-24 to

cause power to be applied to the hoisting motor by connecting the hoisting motor armature 17 to supply lines 12 and 13. This starts the car in the up direction.

In defendants' installation, movement of the operating handle of the car switch to one of its "on" positions (see defendants' exhibit O-3 and the "STARTING AND RUNNING CIRCUIT," Plates III and IV) closes a circuit to start the car. The car switch is located within the elevator car and is the only control means provided by defendants for starting the car. For up car travel, the operating handle of the car switch is moved to the left to energize the coil of up direction switch energizing relay 46 and the coil of circuit establishing relay 45 as follows: from line LL1, through wire DU, the car switch, wire IU, coil of relay 46, wire 3, coil of relay 45, wire N, contacts CR1 of anti-plugging relay 35, through the safety devices, to line LL2. Relay 46 closes its contacts UO1 to energize the coil of up direction switch 27, from line LL1, through the gate and door switches, contacts LVA of leveling switch connecting relay 44, contacts UO1 of relay 46, wire 10, up limit switch, wire 11, coil of up direction switch 27, coil of up holding relay 49, coil of brake switch 29, contacts M of main switch 48, through the safety devices, to line LL2, and relay 45 closes its contacts MD1 to energize the coil of main switch 48, from LL1 through contacts MD1 of relay 45, coil of residual killing switch 26, coil of main switch 48, contacts DS of the door sequence relay 40, through the various safety devices, to line LL2. The main switch engages its contacts M to connect the hoisting motor armature to the armature of the Ward-Leonard generator and the direction switch engages its contacts #1 and #3 to cause power to be applied to the hoisting motor armature by connecting the field winding of the generator to supply lines LL1 and LL2. This starts the car in the up direction.

Defendants' "Automatic Stopping Control" is clearly within the plain language and scope of claim 22.

CLAIM 29.

Claim 29 reads as follows:

"A control system of the type wherein an elevator car is driven by means of power mechanism and wherein the power mechanism is caused to stop the car at a landing in response to the operation of either a switch within the car or a switch at the landing, characterized by the fact that means are provided only in the car for causing the operation of the power mechanism to start the car."

Claim 29 has included in it the following combination of elements:

- (1) **An elevator car.**
- (2) **Power mechanism for driving the car.**
- (3) **A switch within the car for controlling the operation of the power mechanism to stop the car at a landing.**
- (4) **A switch at a landing for controlling the operation of the power mechanism to stop the car at a landing.**
- (5) **Means only in the car for causing operation of the power mechanism to start the car.**

Referring to this claim, element for element:

- (1) **An elevator car.**

This is the elevator car shown in the Parker patent and is the elevator car in defendants' installation.

- (2) **Power mechanism for driving the car.**

This is the hoisting motor of the Parker patent, together with the hoisting sheave, ropes, brake, etc., which operate to start, run and stop the elevator car. This is likewise defendants' hoisting motor, together with the hoisting sheave, ropes, brake, etc., which operate to start, run and stop the car in defendants' installation.

(3) A switch within the car for controlling the operation of the power mechanism to stop the car at a landing.

When any one of the push buttons in the Parker car is pressed, it closes a control circuit from one side of the current supply lines to the selector. Assuming, as in the example chosen in discussing claims 3 and 22, that car push button a4 for the fourth floor is pressed, this connects selector contact f4 to line 12. This circuit is closed to the other side of the supply lines by the selector upon engagement of selector brush 34 with contact f4 as the car nears the fourth floor in its upward travel, which causes the car to slow down. The car is thereafter brought to rest at the fourth floor. The manner in which the power mechanism is controlled to slow down the car and bring it to a stop has already been set forth in detail (see discussions of claims 3 and 22).

When any one of the push buttons in defendants' car is pressed, it closes a control circuit from one side of the current supply lines to the selector. Assuming, as in the example chosen in discussing claims 3 and 22, that car push button 7 for the seventh floor is pressed, this connects selector up switch 2U1 for the seventh floor to line LL1. This circuit is closed to the other side of the current supply lines (line LL2) by the selector upon selector up seventh floor switch 2U1 being closed by a selector cam as the car nears the seventh floor in its upward travel, which causes this car to slow down. The car is thereafter brought to rest at the seventh floor. The control of the power mechanism to slow down the car and bring it to a stop has already been fully set forth (see discussions of claims 3 and 22).

(4) A switch at a landing for controlling the operation of the power mechanism to stop the car at a landing.

The push buttons at the landings in the Parker structure act, when pressed, to close control circuits from one side of the current supply lines to the selector. Assume that up push button i3 at the third floor is pressed. This connects selector contact f3 to line 12. This circuit is completed by the engagement of selector brush 34 with contact f3 as the car nears the third floor in its upward travel, which causes the car to slow down. The car is thereafter brought to rest at the third floor. (See discussions of claims 3 and 22.)

Similarly, the push buttons at the landings in defendants' installation act, when pressed, through relays to close circuits from one side of the current supply lines to the selector. Assume that up push button H3U at the third floor is pressed. This button acts through up third floor signal relay 4, the Randall signal machine and car flash relay 54 to connect selector up switch 2U2 for the third floor to line LL1. The closing of selector up third floor switch 2U2 by the cam as the car nears the third floor in its upward travel completes this control circuit, which causes the car to slow down. The car is thereafter brought to rest at the third floor. (See discussions of claims 3 and 22.)

(5) Means only in the car for causing operation of the power mechanism to start the car.

Parker provides but one switch for starting the car. This is the car switch, which is located within the elevator car. This switch acts through a control circuit (for up car travel, for example, to effect the energization of up coil 16 of the direction switch) to cause the operation of the direction switch which, in turn, causes power to be applied

to the hoisting motor of the power mechanism to start the car. (For a more detailed description of starting the car, see the discussions of claims 3 and 22.)

Likewise, in defendants' installation, there is but one switch provided to start the car, this being the car switch located within the elevator car. This switch acts through a control circuit in effecting the starting of the car. For up car travel, for example, the car switch causes the operation of up direction switch energizing relay 46 which in turn causes the operation of the up direction switch 27. The up direction switch causes power to be applied to the hoisting motor of the power mechanism, starting the car in the up direction. (For a more detailed description of starting the car, see discussions of claims 3 and 22.)

This claim reads clearly on defendants' control system and is infringed by it.

CLAIM 40.

Claim 40 reads as follows:

"A control system for an elevator car comprising a plurality of stop switches, one for each of a plurality of landings, a plurality of additional stop switches, one for each of said landings, start control switching mechanism and car actuating and stopping mechanism responsive to the first named stop switches to stop the car at the landings corresponding to said first named stop switches operated, only when the car is traveling in one direction, responsive to said additional stop switches to stop the car at the landings corresponding to said additional stop switches operated, only when the car is traveling in the other direction and responsive to said start control switching mechanism to start the car."

Claim 40 defines a control system for an elevator car comprising:

- (1) **A plurality of stop switches, one for each of a plurality of landings.**

These are, for example, the up push buttons at the landings in Parker and in defendants' installation.

- (2) **A plurality of additional stop switches, one for each of said landings.**

These are, for example, the down push buttons at the landings in Parker and in defendants' installation.

(3) Start control switching mechanism.

This is Parker's car switch, and is likewise defendants' car switch.

- (4) **Car actuating and stopping mechanism responsive to the first named stop switches to stop the car at the landings corresponding to said first named stop switches operated, only when the car is traveling in one direction, responsive to said additional stop switches to stop the car at the landings corresponding to said additional stop switches operated, only when the car is traveling in the other direction and responsive to said start control switching mechanism to start the car.**

This includes the hoisting mechanism, *i. e.*, the hoisting motor, driving sheave, ropes, brake, etc. It also includes the various switches and circuits controlled by

(a) the push buttons and mechanism operated by car movement to cause the operation of the hoisting mechanism to stop the car, during up car travel, at landings at which up push buttons have been operated and, during down car travel, at landings at which down push buttons have been operated, and

(b) the car switch to cause operation of the hoisting mechanism to start the car after each stop.

In Parker, as has already been pointed out in detail (see

discussions of claims 3 and 22), the pressing of any up push button at a landing sets up a control circuit to the selector. This circuit is completed by the selector, as the car, in its upward travel, nears the landing at which the button is located to initiate stopping of the car and the car is then brought to rest level with that landing. Similarly, the pressing of any down push button at a landing sets up a control circuit to the selector. This circuit is completed by the selector, as the car, in its downward travel, nears the landing at which the button is located, to initiate stopping of the car and the car is then brought to rest level with that landing. The operation of the Parker system in response to down push buttons corresponds to the operation in response to up push buttons, and therefore need not be given in detail. The circuits controlled by the push buttons and selector are arranged in such manner that stops in response to up push buttons are made only during upward movement of the car and stops in response to down push buttons are made only during downward movement of the car. The up push button circuits extend through release coil 37 of up holding magnet 31 while the down push button circuits extend through release coil 37' of down holding magnet 31'. Inasmuch as contact plate 9 is in position bridging contacts 10 and 11 during up car travel, coil 37 must be energized in order to effect the release of this plate from these contacts to stop the upwardly moving car. Consequently, as down push button circuits can only effect the energization of coil 37', the down push buttons are ineffective to cause stopping of the car during up car travel. Similarly, as contact plate 9' is in position bridging contacts 10' and 11' during down car travel, coil 37' must be energized in order to effect the release of this plate from these contacts to stop the downwardly moving car. Consequently, as up push button circuits can only effect the energization of coil 37, the up push buttons are ineffective to cause stopping of the car during down car travel.

The car in Parker's system is started after each stop by movement of the car switch operating handle to "on" position. For up car travel, this handle is moved to the right, while for down car travel, the handle is moved to the left.

In defendants' installation, as a result of the pressing of any up push button at a landing, a control circuit to the selector is set up through the intermediary of the floor signal relay for that push button, the Randall signal machine and car flash relay 54. This circuit is completed by the selector, as the car in its upward travel nears the landing at which the button is located, causing the car to slow down, and the car is then brought to rest level with that landing (see discussions of claims 3, 22 and 29). Similarly, as a result of the pressing of any down push button at a landing, a control circuit to the selector is set up through the intermediary of the floor signal relay for that button, the signal machine and relay 54. This circuit is completed by the selector, as the car in its downward travel nears the landing at which the button is located, causing the car to slow down, and the car is then brought to rest level with that landing. The operation of defendants' system in response to down push buttons corresponds to the operation in response to up push buttons, and therefore need not be given in detail. The circuits controlled by the push buttons and selector are arranged in such manner that stops in response to up push buttons are made only during upward movement of the car and stops in response to down push buttons are made only during downward movement of the car. The circuits through the contacts of the up push button floor signal relays extend through up signal segments of the Randall signal machine while the circuits through the contacts of the down push button floor signal relays extend through down signal segments of the signal machine (defendants' exhibit P-2). Inasmuch as the signal machine up brushes

B, which bridge the up signal segments with the up car flash strip, are connected only during up car travel and as the down brushes which bridge the down signal segments with the down car flash strip are connected only during down car travel, the up push buttons are ineffective to cause stopping of the car during down car travel and the down push buttons are ineffective to cause stopping of the car during up car travel. In addition, contacts UO2 of up direction switch energizing relay 46 and contacts DOA of down direction switch energizing relay 47 are arranged in the up selector circuits and contacts DO2 of down direction switch energizing relay 47 and contacts UOA of up direction switch energizing relay 46 are arranged in the down selector circuits to cause the up selector switches 2U2 to be effective during up car travel and the down selector switches 2D2 to be effective during down car travel (defendants' exhibit O-2).

The car in defendants' structure is started after each stop by movement of the car switch operating handle to "on" position. For up car travel, this handle is moved to the left, while for down car travel it is moved to the right.

This claim also reads on the Parker arrangement and defendants' installation, taking the car buttons instead of the hall buttons as the stop switches. It is infringed by defendants.

CLAIM 65.

Claim 65 reads as follows:

"A control system for an elevator car comprising, a plurality of stop switches, one for each of a plurality of landings, a plurality of additional stop switches, one for each of said landings, and means responsive to the first named switches to stop the car at the landings corresponding to the first named switches operated, only when the car is traveling in one direction, and to the additional switches to stop the car at the landings cor-

responding to the additional switches operated, only when the car is traveling in the other direction, regardless of the position of the car when the various first named and additional switches are operated or the relative order in which the various first named and additional switches are operated."

The Parker invention, as defined in claim 65, comprises in combination:

- (1) **A plurality of stop switches, one for each of a plurality of landings.**

These are, for example, the up push buttons at the landings in Parker and in defendants' installation.

- (2) **A plurality of additional stop switches, one for each of said landings.**

These are, for example, the down push buttons at the landings in Parker and in defendants' installation.

- (3) **Means responsive to the first named switches to stop the car at the landings corresponding to the first named switches operated, only when the car is traveling in one direction, and to the additional switches to stop the car at the landings corresponding to the additional switches operated, only when the car is traveling in the other direction.**

In both the Parker patent and defendants' installation, there are mechanisms and circuits which are responsive to the push buttons at the landings to stop the car, during up car travel, at the floors at which up push buttons have been pressed and, during down car travel, at the floor at which down push buttons have been pressed, as has already been fully set forth in detail in discussing claim 40.

- (4) Regardless of the position of the car when the various first named and additional switches are operated or the relative order in which the various first named and additional switches are operated.

This means that the location of the car at the time the push buttons at the landings are pressed is immaterial. In other words, once up push buttons at the landings have been pressed, the car must make stops, when traveling in the up direction, at the landings at which such buttons are located, and, once down push buttons at the landings have been pressed, the car must make stops, when traveling in the down direction, at the landings at which such buttons are located. This also means that the sequence in which the push buttons at the landings are pressed is immaterial. In other words, the car must make stops at landings at which buttons have been pressed even though the buttons are pressed in an order different from the order in which the landings are reached by the car.

In the Parker patent, whenever a push button at a landing is pressed, contacts are closed which are maintained closed until the reset coil for these contacts is energized. The reset coils for up push buttons are energized when stops are made during up car travel at the landings at which up push buttons have been operated, while the reset coils for down push buttons are energized when stops are made during down car travel at the landings at which down push buttons have been operated. Although in the diagram of the Parker patent, the reset coils for the contacts closed by the up push buttons at the landings and for the contacts closed by the down push buttons at the landings are connected directly to line 12, it is apparent that, in order to accomplish the objects set forth in the Parker specification, all the reset coils for the contacts closed by the up push buttons may be connected to line 12 through contacts 10 and 11 of the car switch and all the reset coils for the

contacts closed by the down push buttons may be connected to line 12 through contacts 10' and 11' of the car switch. This may be done by disconnecting wires n2, n3 and n4 from line 12 and connecting up reset coils m2, m3 and m4 to wire 35 and down reset coils m2', m3' and m4' to wire 35'. This connects these reset coils in the identical manner in which the reset coils for the contacts closed by the push buttons in the car are shown connected in the Parker diagram (R. 528-529).

With this arrangement, assume, for example, that the up push button i3 at the third floor is pressed while the car is at the ground floor and that the car is then started in the up direction. The car is brought to a stop during its upward travel at the third floor, as has been fully explained in discussing the previous claims. When the stop is made, reset coil m3 for contacts j3-l3, closed as a result of the pressing of push button i3, is energized as follows: from line 12, through wire 15, car switch contacts 10 and 11, wire 35, coil m3, post k3, push button contacts j3-l3, wire o3, contacts p3-b3, post c3, wire h3, to selector contact f3, brush 34, current supply ring g, wire 36, coil 37 of up holding magnet 31, wire 38, to line 13. The energization of reset coil m3 restores contacts j3-l3 to open circuit condition. Assume now that the car is at the top floor at the time that the up push button i3 at the third floor is pressed, and that the car is started in the down direction on a trip to the ground floor. During downward movement of the car, car switch contacts 10' and 11' are bridged by contact plate 9', whereas contact plate 9 is disengaged from contacts 10 and 11. Therefore, during the down trip of the car, although the up third floor selector stationary contact f3 is again engaged by brush 34, reset coil m3 is not energized to effect the opening of contacts j3-l3, nor is a stop made in response to up third floor push button i3, owing to the fact that the circuit through selector contact f3 is open at

contacts 10 and 11. On the next trip in the up direction, the car stops at the third floor and contacts j3-l3, closed by the pressing of up third floor push button i3, are reset, as described above.

With this arrangement, therefore, it makes no difference in the Parker system where the car may be at the time a push button at a landing is pressed because the contacts which are closed are maintained closed until a stop is made at that floor in the proper direction. Neither does it make any difference in what order the push buttons at the landings may be operated, since the control circuits closed to the selector stationary contacts by the pressing of these buttons are completed by the selector in the sequence of floors. Thus, stops are made at floors at which push buttons have been pressed without regard to the sequence in which the pressing of the buttons occurred.

In defendants' installation, whenever a push button at a landing is pressed, contacts are closed which are maintained closed until the reset coil for these contacts is energized. The reset coils for up push buttons are energized when stops are made during up car travel at the landings at which up buttons have been operated, while the reset coils for down push buttons are energized when stops are made during down car travel at the landings at which down buttons have been operated. Assume, for example, that the up push button H3U at the third floor is pressed while the car is at the ground floor and that the car is then started in the up direction. The car is brought to a stop during its upward travel at the third floor, as has been fully explained in discussing the previous claims. When the stop is made, the coil of reset relay 17 for contacts HR3U-3 of up third floor signal relay 4, closed as a result of the pressing of push button H3U, is energized as follows: from line L1 of the low voltage source, through contacts NS1 of non-stop relay 58, through contacts DRS

which are closed momentarily upon the closing of the hall door at the third floor after the transfer of passengers has been effected, the up reset strip, brushes and segment of the Randall signal machine, coil of relay 17, wire N, to line L2 (defendants' exhibit O-1 and "STOPPING CIRCUIT for UP HALL BUTTON", Plates III and IV). The energization of the coil of up third floor reset relay 17 restores contacts HR3U-3 to open circuit condition, by opening its contacts R3U to deenergize the holding coil of up third floor signal relay 4. Assume now that the car is at the top floor at the time that the up push button H3U at the third floor is pressed, and that the car is started in the down direction on a trip to the ground floor. During downward movement of the car, the down reset segments of the Randall signal machine are successively bridged to the down reset strip, whereas the up reset segments are not bridged to the up reset strip. This is due to the fact that, during down car travel, the up and down switch of the Randall signal machine is in position to connect the brushes for the down reset strip and segments and to disconnect the brushes for the up reset strip and segments. Therefore, during the down trip of the car, although the up third floor reset segment is again engaged by the brush, the coil of reset relay 17 is not energized to effect the opening of contacts HR3U-3 owing to the fact that the circuit for effecting energization of the coil of the reset relay is open at the reset brushes of the Randall signal machine. Also, the car does not stop in response to up third floor push button H3U during its down trip to the ground floor, as previously explained in discussing claim 40. On its next trip in the up direction, the car stops at the third floor and contacts HR3U-3 of up third floor relay 4 are reset, as described above. (The reset brushes of the signal machine are not shown on defendants' exhibit O-1 but the down reset brushes are shown on defendants' exhibit P-1 in connection with the circuits for the down reset relays for other floors.)

It makes no difference, therefore, in defendants' installation where a car may be at the time a push button at a landing is pressed because the contacts which are closed are maintained closed until a stop is made at that floor in the proper direction. Neither does it make any difference in what order the push buttons at the landings may be operated, since the control circuits closed to the Randall signal machine and, in turn, to the selector switches, as a result of the pressing of these buttons, are completed by the signal machine and by the selector in the sequence of floors. Thus, stops are made at floors at which push buttons have been pressed without regard to the sequence in which the pressing of the buttons occurred.

This claim also reads on the Parker arrangement and defendants' installation, taking the car buttons instead of the hall buttons as the stop switches.

DEFENDANTS INFRINGE CLAIMS 3, 22, 29, 40 AND 65.

From the above, it is clear that each of these claims of the Parker patent includes defendants' structure. It is also plain that the means employed by defendants in carrying out the Parker concept operate in substantially the same manner, for accomplishing exactly the same result, as the means shown and described in the Parker patent. That these claims are infringed is confirmed by the report of the Master (R. 581-588).

DEFENDANTS ALSO INFRINGE CLAIM 41 OF PARKER PATENT.

The Master held claim 41 valid but not infringed (R. 572, 587) and this holding was confirmed by the lower court (R. 644).

Claim 41 reads as follows:

"A control system for an elevator car comprising, a plurality of stop switches, one for each of a plurality of landings, a plurality of additional stop switches,

one for each of said landings, start control switching mechanism, car actuating and stopping mechanism responsive to the first named stop switches to stop the car at the landings corresponding to said first named stop switches operated, only when the car is traveling in one direction, responsive to said additional stop switches to stop the car at the landings corresponding to said additional stop switches operated, only when the car is traveling in the other direction, and responsive to said start control switching mechanism to start the car, and means for preventing the operation of the car actuating and stopping mechanism to stop the car in response to the first named stop switches when the car is traveling in said other direction and in response to said additional stop switches when the car is traveling in said one direction."

Claim 41 defines a control system for an elevator car comprising:

- (1) **A plurality of stop switches, one for each of a plurality of landings.**

These are, for example, the up push buttons i2, i3, etc., at the landings in Parker and the up push buttons H2U, H3U, etc., at the landings in defendants' installation.

- (2) **A plurality of additional stop switches, one for each of said landings.**

These are, for example, the down push buttons i2', i3', etc., at the landings in Parker and the down push buttons H2D, H3D, etc., at the landings in defendants' installation.

- (3) **Start control switching mechanism.**

This is the car switch in the Parker patent, and is the car switch in defendants' installation. In each case, the switch is located within the elevator car.

In the Parker patent, the car switch, referred to as the master control switch and designated by the numeral 1, is provided with an operating lever 3, which is moved to the right to start the car in the up direction and to the left to

start the car in the down direction. Movement of lever 3 to the right to effect up car travel moves contact plate 9 into engagement with contacts 10 and 11, while movement of the lever to the left to effect down car travel moves contact plate 9' into engagement with contacts 10' and 11'.

In defendants' construction, the car switch is shown on exhibit O-3 where it is designated as "car controller". This switch is provided with an operating handle which is moved to the left to start the car in the up direction and to the right to start the car in the down direction. Movement of the handle to the left to effect up car travel moves a contact segment into engagement with a stationary contact, while movement of the handle to the right to effect down car travel moves the contact segment into engagement with a different stationary contact.

- (4) Car actuating and stopping mechanism responsive to the first named stop switches to stop the car at the landings corresponding to said first named stop switches operated, only when the car is traveling in one direction, responsive to said additional stop switches to stop the car at the landings corresponding to said additional stop switches operated, only when the car is traveling in the other direction, and responsive to said start control switching mechanism to start the car.

This includes the hoisting mechanism, *i. e.*, the hoisting motor, driving sheave, ropes, brake, etc. It also includes the various switches and circuits controlled by:

- (a) the push buttons and mechanism operated by car movement to cause the operation of the hoisting mechanism to stop the car, during up car travel, at landings at which up push buttons have been operated and, during down car travel, at landings at which down push buttons have been operated, and

- (b) the car switch to cause operation of the hoisting mechanism to start the car after each stop.

Assume in the Parker system that the car is positioned at the ground floor. To start the car in the up direction, the attendant moves the operating handle 3 of the car switch to the right to bridge contacts 10 and 11 by contact plate 9. This completes the circuit for up coil 16 of the direction or pole-changing switch as follows: from line 12, through wire 14, car switch contacts 10 and 11, bridged by contact plate 9, wire 15, coil 16, to line 13. The energization of coil 16 operates the direction switch to close contacts 20-23 and 21-24. This causes power to be applied to the elevator hoisting motor by connecting the hoisting motor armature 7 to supply lines 12 and 13. This starts the car in the up direction. The bridging of contacts 10 and 11 also effects the energization of the coil 32 of up holding magnet 31, current flowing from line 12, through wire 14, car switch contacts 10 and 11, coil 32, wire 33, to line 13. Magnet 31, by holding contact plate 9 in position bridging contacts 10 and 11, acts to maintain completed the control circuit through up coil 16, thereby maintaining the direction switch operated so that the attendant may release the operating handle of the car switch to "off" position without interrupting the running of the car. Starting of the car in the down direction is effected in a similar manner, and need not be described in detail.

Assume in defendants' installation that the car is positioned at the ground floor. To start the car in the up direction, the attendant moves the operating handle of the car switch to the left to move the contact segment into engagement with the left-hand stationary contact. This completes the circuit for the coil of up direction switch energizing relay 46 and coil of circuit establishing relay 45, the operation of which causes the operation of up direction (or pole changing) switch 27 and main switch 48 respectively (defendants' exhibit O-3 and "STARTING AND RUNNING CIRCUIT", Plates III and IV). The coils of relays 46 and 45 are energized from line LL1, through wire DU, the car switch,

wire 1U, coil of relay 46, wire 3, coil of relay 45, wire N, contacts CR1 of anti-plugging relay 35, through various safety devices, to line LL2. Relay 45, upon energization of its coil, operates to close its contacts MD1 to effect the energization of the coil of switch 48, current flowing from line LL1, through contacts MD1 of relay 45, coil of residual killing switch 26, coil of main switch 48, contacts DS of door sequence relay 40 and the various safety devices, to line LL2. Relay 46, upon energization of its coil, operates to close its contacts UO1 to effect the energization of the coil of switch 27, current passing from line LL1, through the gate and door switches, contacts LVA of leveling switch connecting relay 44, contacts UO1 of relay 46, wire 10, up limit switch, wire 11, coil of up direction switch 27, coil of up holding relay 49, coil of brake switch 29, contacts M of main switch 48, through certain other safety devices and the previously mentioned safety devices, to line LL2. Up direction switch 27, upon energization of its coil, operates to close its contacts #1 and #3 (not shown on Plate III but shown on Plate IV) to cause power to be applied to the elevator hoisting motor, by connecting to supply line LL1 and LL2 the field winding of the Ward-Leonard generator which applies power to the armature of the hoisting motor. This starts the car in the up direction. Movement of the car switch operating handle to the left also effects the energization of the coil of up holding relay 49, the coil of relay 49 being connected in series with the coil of up direction switch 27. Up holding relay 49, upon operation, closes its contacts UT1 which act to maintain completed the control circuit through the coils of relays 46 and 45, thereby maintaining the up direction switch operated so that the attendant may release the operating handle of the car switch to "off" position without interrupting the running of the car. The coil of relay 46 is maintained energized by contacts UT1 of up holding relay 49 when the car switch handle is in "off" position by current flowing from

line LL1, through switch 3, wire DUF, contacts UT1 of relay 49, coil of relay 46, wire 3, coil of relay 45, wire N, contacts CR1 of relay 35, through the various safety devices, to line LL2. Contacts UT1 of up holding relay 49 are maintained closed with the car switch in "off" position since relay 46 maintains the coil of up holding relay 49 energized. The starting of the car in the down direction is effected in a similar manner and need not be described in detail.

As regards stopping the car, assume in the Parker system that an intending passenger standing at the third floor has pressed the up push button i3 at that floor. This sets up a circuit from line 12, through wire n3, coil m3, post k3, push button contacts j3-l3, wire o3, contacts p3-b3, post c3, wire h3, to selector contact f3. Contacts j3-l3, closed by the push button, remain closed, thereby maintaining the circuit closed up to selector contact f3. As the car approaches the third floor in the up direction, stopping is initiated in the following manner: The selector contact brush 34, which is driven in synchronism with the car, engages stationary contact f3. This completes the circuit set up by the up third floor push button i3 from contact f3 through brush 34, current supply ring g, wire 36, coil 37 of up holding magnet 31, wire 38, to line 13. The completion of this circuit energizes coil 37, which neutralizes the magnetic action of coil 32 to release contact plate 9 from contacts 10 and 11. This breaks the circuit for up coil 16 of the direction switch. The direction switch opens contacts 20-23 and 21-24. Upon the opening of these contacts, the car slows down and is thereafter brought to rest level with the third floor.

Assume now in Parker that a down push button is pressed instead of an up push button. The pressing of this button sets up a control circuit to the selector. This circuit is completed by the selector, as the car in its down-

ward travel nears the landing at which the button is located, to initiate stopping of the car and the car is then brought to rest level with that landing. The operation of the Parker system in response to down push buttons corresponds to the operation in response to up push buttons, and therefore need not be given in detail.

Assume that in defendants' structure an intending passenger standing at the third floor has pressed an up hall push button H3U at that floor (defendants' exhibit O-1 and "STOPPING CIRCUITS for UP HALL BUTTON", Plates III and IV). This button acts through up third floor signal relay 4 and car flash relay 54 to set up a circuit to selector switch 2U2 for the third floor. The pressing of the button energizes the actuating coil of relay 4 from line L1, through coil of relay 53, push button H3U, coil of relay 4, to line L2. Relay 4, upon operation, engages contacts HR3U-1 and HR3U-3, the engagement of contacts HR3U-1 rendering the relay self-holding by energizing its holding coil. As the car approaches the third floor in the up direction, stopping is initiated in the following manner: The Randall signal machine completes the circuit for the coil of relay 54 from line L1 through contacts HR3U-3 of relay 4, the segment, brushes and strip of the signal machine, coil of relay 54 and contacts NS3 of relay 58, to line L2. The energization of the coil of relay 54 closes contacts PL3 in the circuit to selector up switch 2U2 for the third floor. The selector cam thereafter closes switch 2U2 to energize the coil of slow-down relay 5, as follows: from line LL1, through switch 3, wire X, contacts PL3 of relay 54, contacts DOA of relay 47, switch 2U2, wire YOY, coil of relay 5, wire YU, resistance, wire YUU, contacts UO2 of relay 46, contacts EA of relay 1, contacts OA of relay 2, wire Y, to line LL2. The energization of the coil of relay 5 closes contacts HO to energize the coil of slow-down retaining relay 2 from line LL1, through switch 3, wire X, contacts of reset relay

24, wire X1, coil of relay 2, contacts HO of relay 5, resistance, to wire Y, and the energization of the coil of relay 2, in turn, closes contacts O2 (defendants' exhibit O-3) to energize the coil of generator field weakening switch 21 from line LL1, through contacts MR of relay 15, contacts O2 of relay 2, coil of switch 21, coil of relay 20, through the safety devices, to line LL2. Switch 21 opens its contacts STA, causing the car to slow down, and after several steps of slow-down, the car is brought to rest level with the third floor.

Assume now in defendants' installation that a down push button is pressed instead of an up push button. The pressing of this button sets up a control circuit to the selector through the intermediary of the floor signal relay for that button, the signal machine and the car flash relay 54. This circuit is completed by the selector, as the car in its downward travel nears the landing at which the button is located, causing the car to slow down, and the car is then brought to rest level with that landing. The operation of defendants' system in response to down push buttons corresponds to the operation in response to up push buttons, and therefore need not be given in detail.

- (5) Means for preventing the operation of the car actuating and stopping mechanism to stop the car in response to the first named stop switches when the car is traveling in said other direction and in response to said additional stop switches when the car is traveling in said one direction.

The circuits in both the Parker patent and in defendants' installation are arranged in such manner that stops in response to up push buttons are prevented during downward movement of the car and stops in response to down push buttons are prevented during upward movement of the car.

In the Parker arrangement, the up push button circuits extend through release coil 37 of up holding magnet 31 while the down push button circuits extend through release coil 37' of down holding magnet 31'. Inasmuch as contact plate 9 is in position bridging contacts 10 and 11 during up car travel, coil 37 must be energized in order to effect the release of this plate from these contacts to stop the upwardly moving car. Consequently, as the down push button circuits can only effect the energization of coil 37', the stopping of the car in response to down push buttons is prevented during upward movement of the car. Similarly, as contact plate 9' is in position bridging contacts 10' and 11' during down car travel, coil 37' must be energized in order to effect the release of this plate from these contacts to initiate stopping of the downwardly moving car. Consequently, as up push button circuits can only effect the energization of coil 37, the stopping of the car in response to up push buttons is prevented during downward movement of the car.

In defendants' arrangement, the circuits through the contacts of the floor signal relays controlled by the up push buttons extend through up signal segments of the Randall signal machine while the circuits through the contacts of the floor signal relays controlled by the down push buttons extend through down signal segments of the signal machine (defendants' exhibit P-2). Inasmuch as the signal machine up brushes B, which bridge the up signal segments with the up car flash strip, are connected only during up car travel and as the down brushes which bridge the down signal segments with the down car flash strip are connected only during down car travel, stopping of the car in response to up push buttons is prevented during downward movement of the car and stopping of the car in response to down push buttons is prevented during upward movement of the car. In addition, contacts UO2 of up direction switch

energizing relay 46 and contacts DOA of down direction switch energizing relay 47 are arranged in the up selector circuits and contacts DO2 of down direction switch energizing relay 47 and contacts UOA of up direction switch energizing relay 46 are arranged in the down selector circuits to cause the up selector switches 2U2 to be effective during up car travel and the down selector switches 2D2 to be effective during down car travel (defendants' exhibit O-2).

This claim also reads on the Parker patent and defendants' installation taking the car buttons instead of the hall buttons as stop switches.

Thus, both Parker and defendants have all the elements of claim 41, combined in the same way to produce the same results.

The Master states as his reason for holding claim 41 not to be infringed that the last element of the claim, namely (R. 586) :

"means for preventing the operation of the car actuating and stopping mechanism to stop the car in response to the first named stop switches when the car is traveling in said other direction and in response to said additional stop switches when the car is traveling in said one direction"

in defendants' installation is not the equivalent of the means employed by Parker.

In stopping, both Parker and defendants energize a magnet coil as the car approaches the floor at which a stop is to be made.

In the Parker structure, two magnet coils are provided, one for controlling stopping of the car only during up car travel and the other for controlling stopping of the car only during down car travel, and the up and down circuits are separated by running the up push button circuits through the up stop controlling magnet coil and the down

push button circuits through the down stop controlling magnet coil.

In defendants' installation, one magnet coil is provided for controlling stopping of the car during both directions of car travel, and the up and down circuits are separated by running the up push button circuits through this coil by way of contacts which are closed only during up car travel and the down push button circuits through this coil by way of contacts which are closed only during down car travel.

It is submitted that the electrical and mechanical parts are full equivalents. Each of the Parker claims here asserted is clearly infringed. This is fully supported by the following authorities.

INFRINGEMENT CLEAR UNDER THE DECISIONS OF THE SUPREME COURT, THIS AND OTHER APPELLATE COURTS, WHICH FULLY SUPPORT THE MASTER'S FINDINGS.

The infringement is plain, complete and servile, and the evidence clearly shows that the defendants' device is but a copy of plaintiff's Otis "Signal Control" elevators, made under the Parker patent, and is intentionally designed to and does accomplish the same results in substantially the same way.

That, where the substance of an invention is appropriated, infringement is not avoided by changes in details of construction, or by additions or improvements, which do not deprive the device of its functions, is a proposition too well established by the decisions to be seriously disputed. In substantially all the cases where infringement has been adjudicated the defendant has made greater changes from the construction illustrated in the patent than in the present case; in none of them have the functions and results disclosed in the patent been more fully utilized; in some of them the departure has been such as to escape the

language of the claims; but, notwithstanding this, infringement has been found, because the substantial inventive concept was present and the defendant was not permitted to escape by substituting elements which, while performing the functions as the elements of the claims, were not within its exact language. Here the infringement responds to the terms of the claims, and is the plain equivalents of each. In many of the cases the defendant has been conceded to have made substantial improvements upon the patented device, and these improvements have been recognized as patentable, but, notwithstanding this, infringement has been found. See:

- Winans v. Denmead*, 15 How. 330.
Blake v. Robertson, 94 U. S. 728.
Hoyt v. Horne, 145 U. S. 302, 309.
Loom Co. v. Higgins, 105 U. S. 580.
Clough v. Barker, 106 U. S. 166.
Clough v. Manufacturing Co., 106 U. S. 178.
Consol. Valve Co. v. Crosby Valve Co., 113 U. S. 157, 167.
Morley Machine Co. v. Lancaster, 129 U. S. 263.
Royer v. Schultz Belting Co., 135 U. S. 319.
Sessions v. Romadka, 145 U. S. 29.
Keystone Mfg. Co. v. Adams, 151 U. S. 139.
Hobbs v. Beach, 180 U. S. 383, 398.
Busch v. Jones, 184 U. S. 598.
Paper Bag Patent Case, 210 U. S. 405.

The Supreme Court in *Hildreth v. Mastoras*, 257 U. S. 27, repeatedly cited and quoted with approval, considered and disposed, adversely to the defendant, of the contention of non-infringement quite similar to the one here.

In the *Mastoras* case the patent related to a candy pulling machine. The claims were directed to a machine having a trough for supporting and reciprocating pins in the

trough for pulling the candy. The defendant's machine had no trough. The pins which did the pulling also served as a support for the candy while being pulled. Notwithstanding this apparent marked departure and the fact that the defendant had dispensed with plaintiff's trough and relied on the pins to not only do the pulling but serve as a support for the candy, the Court in finding infringement said at page 36:

"The counsel for the respondent, however, urge that the trough, not shown in the alleged infringement, is a necessary element of Dickinson's claim, because without it the batch of candy could not be supported against gravity, and he suggests no alternative. Dickinson says in his specifications that he shows a trough for supporting the candy, but any suitable support may be used which has the capacity for supporting the candy while it is being operated upon. Two of the machines, the Jenner and the first Thibodeau, which were in interference in the Patent Office with Dickinson, had the pins set, not in an upright but in a horizontal position, and thus the candy in their machines needed no trough support but rested on the pins themselves, and this Langer has adopted. Doubtless this was an improvement which was perhaps patentable, but none of the tribunals in the Patent Office proceedings deemed this to be more than an improved equivalent of the trough which did not take these machines out of the domination of the claim awarded to Dickinson. As the Dickinson patent is a generic patent, the doctrine of broad equivalents properly applies here. *Morely Sewing Machine Co. v. Lancaster*, 129 U. S. 263, 273; *Miller v. Eagle Manufacturing Co.*, 151 U. S. 186, 207; *Paper Bag Patent Case*, 210 U. S. 405."

In *Stebler v. Riverside Heights Orange Growers' Assn.*, 205 Fed. 735 (C. C. A. 9), the defendant was operating under the Parker patent, but this Court held that the additions of the Parker patent did not avoid infringement, although an additional function was performed, ruling, in this orange grader case, even where the defendant's addi-

tions were patented, that there was infringement, in the following language, p. 739-740:

"The only question, therefore, is whether the longitudinal extensibility of the defendants' device operates to avoid the charge of infringement, and this question must be answered in the negative. The defendants have appropriated the plaintiff's invention, the essence of which is the combination with a traveling belt (common to the Ish, Strain, and Parker machines) of a series of independent rotating units arranged in longitudinal succession parallel with the belt, each transversely adjustable. One who appropriates another's patented invention, even though he may add thereto another element to perform an additional function, is guilty of infringement. *Powell v. Leicester Mills Co.*, 108 Fed. 386, 47 C. C. A. 416; *Letson v. Alaska Packers' Ass'n.*, 130 Fed. 129, 64 C. C. A. 463; *American Can Co. v. Hickmott Co.*, 142 Fed. 141, 146, 73 C. C. A. 359; *Columbia Wire Co. v. Kokomo Co.*, 143 Fed. 116, 74 C. C. A. 310; *Comptograph Co. v. Mechanical Acct. Co.*, 145 Fed. 331, 337, 76 C. C. A. 205; *Corrington v. Westinghouse Co.* C. C. 173 Fed. 69, 81; *Weston Elec. Inst. Co. v. Whitney Co.* (C. C.) 131 Fed. 280; *Diamond Match Co. v. Ruby Match Co.* (C. C.) 127 Fed. 341; *Benjamin Elec. Co. v. Dale Co.*, 158 Fed. 617, 85 C. C. A. 439; *O'Leary v. Utica & Mohawk Co.* (C. C.) 139 Fed. 330; *L. J. Mueller Co. v. Groeschel* (C. C.) 166 Fed. 917; *Long v. Noye Mfg. Co.* (C. C.) 192 Fed. 570. In *Cimiotto Unhairing Co. v. American Unhairing Mach. Co.*, 115 Fed. 498, 504, 53 C. C. A. 230, 236, the Circuit Court of Appeals of the Second Circuit uses the following language:

"The mere fact that there is an addition, or the mere fact that there is an omission, does not enable you to take the substance of the plaintiff's patent. The question is, not whether the addition is material, or whether the omission is material, but whether what has been taken is the substance of the invention'."

In *Angelus Sanitary Can Mach. Co. v. Wilson*, 7 F. (2d) 314, this Court found infringement by a structure, which was patented on behalf of defendant. The Guenther patented structure was found to infringe the Wilson *et al.* patent in suit, the court saying, p. 319:

"Without restating the mechanisms in further de-

tail, the conclusion we must reach is that claim 2, when applied to Guenther's patent, No. 1,441,195, January 2, 1923, reads upon his practice and device."

This Court also said, p. 318:

"We regard claim 2, in the element of encircling means, as entitled to a construction which includes a fairly liberal range of equivalents. The difference in the use of a mechanical equivalent does not avoid infringement. In *Eibel Process Co. v. Paper Co.*, 261 U. S. 45, 43 S. Ct. 322, 67 L. Ed. 523, the court, through the Chief Justice, clearly reiterated the doctrine that where an inventor, though not a pioneer in the sense of having created a new art, has made a very useful discovery which has substantially advanced the art, his patent, though but an improvement on an old machine, may be entitled to liberal treatment. That same principle was applied by this court in *Smith Cannery Co. v. Seattle Astoria Iron Works* (C. C. A.) 261 F. 87. Defendants therefore cannot escape infringement by adding to or taking from the patented device by changing its form, or even by making it somewhat more or less efficient, while they retain its principle and mode of operation and attain its results by the use of the same or equivalent mechanical means. *Lourie v. Lenhart*, 130 F. 122, 64 C. C. A. 456; *Letson v. Alaska Packers Association*, 130 F. 129, 64 C. C. A. 463; *Eck v. Kutz* (C. C.) 132 F. 758. By varying the encircling means, but producing the same results in substantially the same manner, there is infringement. Both physical and mechanical encircling with centering are found in defendants' machine, *Union Paper Bag Machine Co. v. Murphy*, 97 U. S. 120, 24 L. Ed. 935; *Kinloch Telephone Co. v. Western Electric Co.*, 113 F. 659, 51 C. C. A. 362; *Auto Pneumatic Action Co. v. Kindler & Collins*, *supra*; *Pangborn Corporation v. Sly Mfg. Co* (C. C. A.) 284 F. 217."

In *Bliss et al. v. Spangler*, 217 Fed. 394, this Court found the Bliss device to be an infringement of Spangler's combination patent, although it was strongly urged before this Court that Bliss had *reorganized* the device and patented that reorganization. Addition of inventive factors, as well as those involving mere mechanical skill, and

whether those inventive factors are patented or not, does not avoid infringement.

In *Parker v. Automatic Mach. Co.*, 227 Fed. 449, opinion by the late District Judge Van Fleet of the District Court for the Northern District of California, the controversy involved a patent for a box-making machine. There counsel for defendant attempted to make it appear that a certain "elevator" feature of plaintiff's device was its "life-giving principle" and "so essential to the successful operation of the entire combination of correlated parts that without it the machine was not workable, and that consequently 'there can be no infringement of the Parker patent by any machine which does not employ the same principle of action, to wit, the elevator principle'." (p. 452.) The court went on to say, p. 452:

"In this I am unable to accept defendant's view, but am satisfied that he greatly magnifies the functional value of that element in its relation to the other features of the combination. As I regard it, this feature of the feed mechanism of plaintiff's device is in no wise essential to its life; nor do the terms of the patent make it so. Any other means of an equivalent nature may be substituted for it and still be within the patent; and from my observation of the operation of the two machines, in the light of the evidence, I am quite satisfied that the substitute means employed in defendant's device is no more than such a change as might readily have been suggested to the mind of any mechanic skilled in the art, with plaintiff's device before him, and that it in no material way effects a change in the principle or mode of operation found in plaintiff's combination.

While changing its form, all defendant has accomplished in substance and effect is the consolidation of two elements of the feeding mechanism into one, but without changing the principle upon which the combinative mechanisms operate. This does not avoid infringement. As stated by the Court of Appeals in the recent case of *Dundon v. Pederson*, 220 Fed. 309, 311:

'Neither the joinder of two elements of a patented

combination into one integral part, accomplishing the purpose of both, nor the separation of one integral part into two, which together accomplish substantially what was done by the single element, will avoid a charge of infringement. *Bundy Mfg. Co. v. Detroit Time Register Co.*, 94 Fed. 524, 36 C. C. A. 375; *Standard Caster & Wheel Co. v. Caster Socket Co.*, 113 Fed. 162, 51 C. C. A. 109; *H. F. Brammer Mfg. Co. v. Witte Hardware Co.*, 159 Fed. 726, 728, 86 C. C. A. 202.

It is the idea of means, and not of form, which is determinative of identity of principle. Thus it is said in *Lourie Co. v. Lenhart*, 130 Fed. 122, 64 C. C. A. 456:

'A device which is constructed on the same principle, which has the same mode of operation, and which accomplishes the same result as another, by the same means, or by equivalent mechanical means, is the same device, and a claim in a patent of one such device claims and secures the other.'

And this is so even if the change work an improvement. Thus in *Crown Cork & Seal Co. v. Aluminum Stopper Co.*, 108 Fed. 866, 48 C. C. A. 72, it is said:

'The court will look through the disguises, however ingenious, to see whether the inventive idea of the original patentee has been appropriated, and whether the defendants' device contains the material features of the patent in suit, and will declare infringement, even when those features have been supplemented and modified to such an extent that the defendant may be entitled to a patent for the improvement.'

See, also, *Machine Co. v. Murphy*, 97 U. S. 120, 24 L. Ed. 395."

The above matter very well applies to the case at bar, for defendants' counsel will attempt to make it appear that because a part of one of the switches controlled from the car is moved out of the elevator car into the penthouse there can be no infringement. Defendants likewise may urge that certain details are the "life-giving" features of the invention, where, as a matter of fact they are merely used in such a way as to be dominated by the Parker "Control." In the third place they may contend that they

have worked improvements, even reflecting invention, in their changes. These do not avoid infringement.

In *Butler v. Burch Plow Co.*, 23 F. (2d) 15, this Court well said of the combination patent there in controversy, (p. 27):

"Where a combination patent marks a distinct advance in the art to which it relates, as does the appellant's invention here, the term 'mechanical equivalent' should have a reasonably broad and generous interpretation, and protection against the use of mechanical equivalents in a combination patent is governed by the same rules as patents for other inventions. *Imhaeuser v. Buerk*, 101 U. S. 647, 25 L. Ed. 945. The fact, if it be a fact, that the infringing machine is superior, more useful, and more acceptable to the public than that of the appellant, does not avoid infringement, so long as the essential features of the appellant's patented machine are used, unless its superiority is due to a difference in function or mode of operation or some essential change in character. *Morley Machine Co. v. Lancaster*, 129 U. S. 263, 9 S. Ct. 299, 32 L. Ed. 715; *Hoyt v. Horne*, 145 U. S. 302, 12 S. Ct. 922, 36 L. Ed. 713; *Lourie Implement Co. v. Lenhart*, 130 F. 122, 64 C. C. A. 456; *Diamond Match Co. v. Ruby Match Co.* (C. C.) 127 F. 341; *Whitely v. Fadner* (C. C.) 73 F. 486." *Smith Cannery Machines Co. v. Seattle-Astoria I. W.* (C. C. A.) 261 F. 85, 88.

Defendants therefore cannot escape infringement by adding to or taking from the patented device by changing its form, or even by making it somewhat more or less efficient, while they retain its principle and mode of operation and attain its results by the use of the same or equivalent mechanical means. *Lourie v. Lenhart*, 130 F. 122, 64 C. C. A. 456; (*Letson*) *Letson v. Alaska Packers' Association*, 130 F. 129, 64 C. C. A. 463; *Eck v. Kutz* (C. C.) 132 F. 758. By varying the encircling means, but producing the same results in substantially the same manner, there is infringement. Both physical and mechanical encircling, with centering, are found in defendants' machine. *Union Paper Bag Machine Co. v. Murphy*, 97 U. S. 120, 24 L. Ed. 935; *Kinloch Telephone Co. v. Western Electric Co.*, 113 F. 659, 51 C. C. A. (369) 362; *Auto Pneumatic*

Action Co. v. Kindler & Collins (C. C. A. 247 F. 323), *supra*; *Pangborn Corporation v. Sly Mfg. Co.* (C. C. A.) 284 F. 217.' *Angelus Sanitary Can Mach. Co. v. Wilson* (C. C. A.) 7 F. (2d) 314, 318."

On the question of dividing up and rearranging elements of a patented combination, such as making one of the switches in two parts and the like, this Court, in *Kings County Raisin and Fruit Co. et al. v. U. S. Cons. Seeded Raisin Co.*, 182 Fed. 59, 63, said:

"Infringement is not avoided by the fact that one of the integral elements of his built-up impaling roll is by the appellants separated into two or more distinct parts, so long as the function and operation remain substantially the same. *Kalamazoo Ry. Supply Co. v. Duff Mfg. Co.*, 113 Fed. 264, 51 C. C. A. 221; *Bundy Mfg. Co. v. Detroit Time-Register Co.*, 94 Fed. 524, 36 C. C. A. 375; *H. F. Brammer Mfg. Co. v. Witte Hardware Co.*, 159 Fed. 726, 86 C. C. A. 202."

In *Carson Inv. Co. v. Anaconda Copper Mining Co.*, 26 F. (2d) 651, 662, this Court said:

"But, by not using Carson's invention to its full extent in protecting the side walls from heat, yet using it to a substantial extent, defendant cannot avoid infringement. *Winans v. Denmead*, 15 How. 344, 14 L. Ed. 717, followed in *King Ax Co. v. Hubbard* (C. C. A.) 97 F. 795. See, also, *Penfield v. Chambers* (C. C. A.) 92 F. 630, and *Kawneer v. Detroit* (D. C.) 240 F. 737."

In *Union Tool Co. v. Wilson*, 249 Fed. 736, it was contended there was no infringement because the defendant-appellant did not use all of the features of the patented device, an underreamer for oil wells. The decree was affirmed by this Court. It said (p. 747):

"The fact that the appellant has not used each attribute of the Wilson invention cannot excuse it from being held to infringement. The *Paper Bag Case*, 210 U. S. 405, 28 Sup. Ct. 748, 52 L. Ed. 1122; *Stebler v. Riverside Heights Association*, 205 Fed. 735, 124 C. C. A. 29; *Parker v. Automatic Machine Co.* (D. C.) 227 Fed. 451; *Jackson Fence Co. v. Peer-*

less Fence Co., 228 Fed. 691, 143 C. C. A. 213; *Walker on Patents*, Sec. 350."

In *Remington Cash Register Co. v. National Cash Register Co.*, 6 F. (2d) 585 (D. C. Conn.) the Court well summarizes the rules to be applied at page 591:

"Neither the joining of two elements into an integral part, accomplishing the purpose of both, and no more, nor the separation of one integral part into two, which together do substantially what was done with the single element will evade a charge of infringement. The rule here applicable was stated by Mr. Justice Curtis, speaking for the Supreme Court in *Winans v. Denmead*, 56 U. S. (15 How.) 330, at page 343, 14 L. Ed. 717, in the following manner:

"'Where form and substance are inseparable, it is enough to look at the form only. Where they are separable, where the whole substance of the invention may be copied in a different form, it is the duty of courts and juries to look through the form for the substance of the invention, for that which entitled the inventor to his patent, and which the patent was designed to secure; where that is found, there is an infringement, and it is not a defense that it is embodied in a form not described, and in terms claimed by the patentee.'

* * * * *

"In the later case of *Continental Paper Bag Co. v. Eastern Paper Bag Co.*, 210 U. S. 405, at page 422, 28 S. Ct. 748, 752 (52 L. Ed. 1122), the Supreme Court had under consideration a claim on a bag-making machine very similar in character to the Gubelmann claims here in issue, and Mr. Justice McKenna, speaking for the court, on page 422 (28 S. Ct. 752), said:

"'The claim is not for a function, but for mechanical means to bring into working relation the folding plate and the cylinder. This relation is the very essence of the invention, and marks the advance upon the prior art. It is the thing that never had been done before, and both the lower courts found that the machines of the Continental Company were infringements of it.'

"The above language covers the situation in the case at bar, in that the mechanical means defined by Gubelmann's claims are the very essence of the Gubel-

mann invention, and defendant's machines incorporate these mechanical means, or their equivalents, in their constructions. In the *Paper Bag Case*, Mr. Justice McKenna, on page 418 (28 S. Ct. 751), further stated:

"We think it is clear that the court considered that Liddell sought to comply with section 4888 of the Revised Statutes (U. S. Comp. St. 1901, p. 3383). In other words, he filed a description of his invention, explained its principle and the best mode in which he 'contemplated applying that principle,' and did not intend to give up all other modes of application. An inventor must describe what he conceives to be the best mode, but he is not confined to that. If this were not so, most patents would be of little worth. 'The principle of the invention is a unit, and invariably the modes of its embodiment in a concrete invention may be numerous and in appearance very different from each other.' Robinson Patents, Sec. 485.

"In *Eibel Process Co. v. Minnesota & Ontario Paper Co.*, 261 U. S. 45, at page 63, 43 S. Ct. 322, 328 (67 L. Ed. 523), Mr. Chief Justice Taft said:

"'In administering the patent law the court first looks into the art, to find what the real merit of the alleged discovery or invention is, and whether it has advanced the art substantially. If it has done so, then the court is liberal in its construction of the patent, to secure to the inventor the reward he deserves.'

"The Gubelmann patent, disclosing, as defendant's expert admits, broadly new inventions in the art, is entitled to a broad range of mechanical equivalents, as was held in the recent case of *Hildreth v. Mastoras*, 257 U. S. 27, on page 36, 42 S. Ct. 20, 24 (66 L. Ed. 112), where Mr. Chief Justice Taft said that, 'as the Dickinson patent is a generic patent, the doctrine of broad equivalents properly applies here.' This follows the well-established rule pronounced by Mr. Justice McKenna in the *Paper Bag Co. Case, Supra*, at page 414 (28 S. Ct. 749), which was stated in the following language:

"'The right view is expressed in *Miller v. Eagle Manufacturing Company*, 151 U. S. 186, 207 (14 S. Ct. 310, 318 (38 L. Ed. 121)), as follows: "The range of equivalents depends upon the extent and nature of the invention. If the invention is broad and pri-

mary in its character, the range of equivalents will be correspondingly broad, under the liberal construction which the courts give to such inventions.'

"The doctrine of equivalents is well stated by Judge Colt in *Edison Electric Light Co. v. Boston Incandescent Lamp Co.* (C. C.) 62 F. 397, at page 399:

"'The doctrine of equivalents, as applied to primary inventions, rests upon a more satisfactory basis by the elimination of the qualification of age or time, and by holding those things to be equivalents which perform the same function in substantially the same way. The fundamental question is whether the alleged infringer makes use of the essence of the patented invention; not whether he has adopted a known equivalent, or made a patentable improvement on the invention.'

"The above decision was cited with approval by Judge Hough in *Treibacher v. Roessler* (D. C.) 214 F. 410, at 413; affirmed 219 F. 210, 135 C. C. A. 108. See also *General Electric Co. v. Alexander* (C. C. A. 2d) 280 F. 852; *Wagner Typewriter Co. v. Wyckoff, Seaman & Benedict*, 151 F. 585, 81 C. C. A. 129; *Manton-Gaulin Mfg. Co. v. Dairy Machinery & Construction Co.* (D. C.) 238 F. 210; affirmed, 247 F. 317, 159 C. C. A. 411."

THAT INFRINGEMENT IS NOT AVOIDED BY MAKING ADDITIONS OR IMPROVEMENTS; NOR BY THE FACT THAT DEFENDANT HAS A PATENT THEREFOR. SEE ALSO:

Hobbs v. Beach, 180 U. S. 383, 401;

Lord & Burnham Co. v. Payne, 195 Fed. 75 (C. C. A. 3);

Columbia Wire Co. v. Kokomo Steel & Wire Co., 143 Fed. 116, 124 (C. C. A. 7);

Benjamin v. Dale Co., 158 Fed. 617 (C. C. A. 2);

Nathan v. Howard, 143 Fed. 889 (C. C. A. 6);

Toledo Plate & Window Glass Company v. Kawneer Manufacturing Co., 237 Fed. 364 (C. C. A. 6);

International Time Recording Co. v. Dey, 142 Fed. 736 (C. C. A. 2).

THAT INFRINGEMENT IS NOT AVOIDED BY DIMINISHING OR INCREASING UTILITY OF PATENTED CONSTRUCTION OR IMPROVING ITS FUNCTIONS. SEE ALSO:

Penfield v. Chambers Bros. Co., 92 Fed. 630, 653, (C. C. A. 6), where Judge Taft, speaking for the Court of Appeals says (p. 653) :

“An infringer cannot evade liability for his infringement by deliberately diminishing its utility without changing materially its form, its chief function, or its manner of operation. *Sewing Mach. Co. v. Frame*, 24 Fed. 596.”

Murray v. Detroit Wire Spring Co., 206 Fed. 465, where the Court of Appeals for the Sixth Circuit held that (p. 466) :

“Infringement is not avoided by impairment of the functions of an element of a patented device in degree, if the distinguishing function is retained, nor by adding elements to the completed structure of the patent.”

And cited in support of this :

. *Penfield v. Chamber Bros. Co.*, 92 Fed. 630, and
King et al. v. Hubbard, 97 Fed. 795.

Goessling Box Co. v. Gumb, 241 Fed. 674 (C. C. A. 8).

Owens v. Twin City Separator Co., 168 Fed. 259 (C. C. A. 8).

Brake Beam Case, 106 Fed. 693 (C. C. A. 8).

PLAINTIFF ENTITLED TO ALL THE ADVANTAGES INHERENT IN ITS PATENTED APPARATUS.

The courts plainly support this contention.

In *Diamond Rubber Company of New York v. Consolidated Rubber Tire Company*, 220 U. S. 428, the Supreme Court states the rule concerning the necessary completeness of disclosure in a patent as follows (p. 435) :

“A patentee may be baldly empirical, seeing noth-

ing beyond his experiments and the result; yet if he has added a new and valuable article to the world's utilities he is entitled to the rank and protection of an inventor. And how can it take from his merit that he may not know all the forces which he has brought into operation? It is certainly not necessary that he understand or be able to state the scientific principles underlying his invention, and it is immaterial whether he can stand a successful examination as to the speculative ideas involved. *Andrew v. Croos*, 8 Fed. Rep. 269; *Eames v. Andrews*, 122 U. S. 40, 55; *St. Louis Stamping Co. v. Quinby*, 16 Off. Gaz. 135; *Dixon Wood Co. v. Pfeifer*, 55 Fed. Rep. 390; *Cleveland Foundry Co. v. Detroit Vapor Stove Co.* (C. C. A. Sixth Circuit), 131 Fed. Rep. 853; *Van Epps v. United Box Co.* (C. C. A. Second Circuit), 143 Fed. Rep. 869; *Westmoreland Specialty Co. v. Hogan*, (C. C. A. Third Circuit), 167 Fed. Rep. 327. He must, indeed, make such disclosure and description of his invention that it may be put into practice. In this he must be clear. He must not put forth a puzzle for invention or experiment to solve but the description is sufficient if those skilled in the art can understand it. This satisfies the law, which only requires as a condition of its protection that the world be given something new and that the world be taught how to use it. It is no concern of the world whether the principle upon which the new construction acts be obvious or obscure, so that it inheres in the new construction."

In *Morgan Engineering Co. v. Alliance Machine Co.*, 176 Fed. 100 (C. C. A. 6):

"A patentee is entitled to have his patent considered with reference to an advantage over the prior art necessarily secured by the operation of the device as described, even though such advantage is not specifically claimed."

In *National Hollow Brake Beam Co., et al. v. Interchangeable Brake Beam Co.*, 106 Fed. 693, 709 (C. C. A. 8) Judge Sanborn said:

"It is true that Hien did not describe or claim, and it is possible that he was not aware of, the utility of resilience in the beam when he procured his first patent; but the law did not exact of him a statement or

claim of the functions or uses of his combinations, and those uses and functions were not the subject of patent. He did describe and claim the means by which this resilience in the beam could be produced, maintained, and utilized, and this was all that was required of him by the statutes and the decisions. When this had been done, and a grant of the exclusive use of the combination he had thus claimed had been made to him, he had secured thereby a monopoly of all the uses to which that combination could be applied, whether he was aware of them or not. An inventor is not called upon to state in his specification or claims for a patent all the functions of his device, or all the uses to which his invention may be put. When he has plainly described and claimed his machine or combination, and has secured a patent for it, he has the right to every use to which his device can be applied, and to any way in which it can be utilized to perform its function, whether or not he was aware of all these uses or methods of use when he claimed and secured his monopoly. *Roberts v. Ryer*, 91 U. S. 150, 157, 23 L. Ed. 267; *Miller v. Manufacturing Co.*, 151 U. S. 186, 201, 14 Sup. Ct. 310, 38 L. Ed. 121; *Goshen Sweeper Co. v. Bissel Carpet Sweeper Co.*, 72 Fed. 67, 19 C. C. A. 13, 37 U. S. App. 555; *Frederick R. Stearns & Co. v. Russell*, 85 Fed. 218, 226, 29 C. C. A. 121, 129; *Manufacturing Co. v. Neal* (C. C.) 90 Fed. 725; *Tire Co. v. Lozier*, 90 Fed. 732, 744, 33 C. C. A. 255, 268."

See *Horton Mfg. Co. v. White Lily Mfg. Co.*, Court of Appeals for the seventh circuit (213 Fed. 471, 477).

In *Kuhlman Electric Co. v. General Electric Co.*, 147 Fed. 709 (C. C. A. 7), the Court of Appeals of that circuit, in sustaining the electrical transformer patent then before it, even though it did not state the principal advantages which reside in it, says (p. 712):

"Now though these advantages be different from the one chiefly in the patentee's mind, the invention will not on that account fail, if there be in the concept an actual advantage, and the structure embodying it evinces patentable invention; for a patentee is entitled, not only to what he specifically sees, but to what has been brought about by his invention, even though not at the time actually seen."

In *Angle Regulating Appliance Co. et al. v. Aderer* (C. C. N. Y.) 171 Fed. 93, the court, in holding the patent valid, owing to a novel result not set out in the specification, although inherent in the structure, says (p. 95) :

“This result is not set forth and is not claimed in the patent, but the form of apparatus which renders it possible is shown, and means by which the successful result is secured are disclosed; for which reasons it seems to me that the patentee is entitled to whatever benefit or advantage may accrue from this characteristic of his patented device, although not by him specifically set forth in his application. *Van Epps v. United Box Board & Paper Co.*, 143 Fed. 869, 75 C. C. A. 77.”

In *Stilwell-Bierce & Smith-Vaile Co. v. Eufaula Cotton Oil Co. et al.*, 117 Fed. 410, 415 (C. C. A. 6), Judge, later Mr. Justice Day, in writing the opinion of the court, says:

“An inventor is not required to describe in full all the beneficial functions to be performed by his machine. If the thing accomplished is a necessary consequence of the improvement made and described, making it obvious that the inventor intended the thing accomplished, though not specifically pointed out, he is entitled to the benefit thereof in construing his patent.”

See, also:

Stromberg Motor Devices Co. v. Zenith, 254 Fed. 68, (C. C. A. 7).

THE CLAIMS OF A PATENT SHOULD BE CONSTRUED TO INCLUDE THE NOVEL FEATURES AND ADVANTAGES INHERENT IN THE INVENTION WHETHER SPECIFICALLY PRESCRIBED IN THE CLAIMS OR NOT.

In the case of *Waterloo Cement Machinery Corp. v. Engel*, 230 Fed. 169, the trial court, in reading into the claims certain features so as to include within them the important features of the invention in distinguishing them over the prior art, said at page 170:

“According to the specification the supporting cross-

bar is provided with an upwardly projecting spindle so affixed as to make it a part of the crossbar. Neither of the claims in issue particularizes such feature, and the first question to be answered is whether the particular crossbar of the specification is included in the claims and protected by the patent. It is referred to in the specification with considerable detail, and stress is laid upon the manner of arranging the shaft in relation to the mixing tank and extending it into 'an integral upwardly extending sleeve 13 of the tank so as to provide an axle bearing for the tank, preventing the latter from swerving or tilting on its ball bearings.' The drawings quite clearly illustrate the details of construction of the crossbar, and, indeed, the feature of projecting the shaft into the tank was evidently regarded by the patentee as a highly important feature of the invention. To project the bearing into the tank, instead of projecting it outwardly from the bottom of the tank, as shown in prior patents in evidence, was conducive to a more even distribution of the load and a better balancing of it on the bearing shaft, and also to a more convenient use of the tank for mixing and discharging material. In my opinion the claims must be construed to cover the actual invention; that is, as if the claims had specified the crossbar or spindle as one projecting into the tank. Such a construction I believe is justified, even though the claims do not contain the words 'substantially as described.'

Mitchell v. Tilghman, 19 Wall. 287, 22 L. Ed. 125.

"In *Fowler & Wolfe Mfg. Co. v. McCrum-Howell Co.* 215 Fed. 905, 132 C. C. A. 143, the Circuit Court of Appeals for this circuit had before it a somewhat similar question arising from the failure of the claim of the patent to specify the size of tubes for a radiator, and Judge Rogers, writing the opinion, said:

"'We cannot understand why the court below should have reached the conclusion that an invention described in the specification, but not included in the "claims," cannot be protected by a patent. We regard the law as well established that the claims of a patent are to be construed in the light of the specification.'

"Giving effect to that decision requires reading into the claims in suit the particular bearing or crossbar described in the specification and drawings, notwithstanding

standing the fact that the claims on their faces are broader; and, when thus construed, the method of mounting the crossbar is unimportant, so long as it is supported by spindles which enable it to swerve or tip."

The Court of Appeals for the Second Circuit, in affirming this decision, 240 Fed. 976, at page 978, speaking through Circuit Judge Coxe, said:

"The construction placed upon the claims does not violate any rule of interpretation but simply gives the patentee the benefit of what he has actually invented. When the claim refers to 'a supporting crossbar connected at each end with the top of the standards,' it means the crossbar described and shown. It was not necessary to go into minute details in the claims themselves as to each of their separate elements. When the claims refer to a crossbar they mean a workable crossbar, the crossbar of the patent—the crossbar described and shown. Such a construction gives the complainant the advantages to which it is fairly entitled as the owner of the Snell patent. It is not essential that the claim shall describe in detail each element of the combination; it is enough if these details are shown in the description and drawings.

"Both of the claims in issue have as an element of the new combination described and shown 'a mixing-tank rotatably mounted on the crossbar.' These claims do not specify the precise means adopted to accomplish this result but the description and drawings plainly show the method used by the patentee which is novel and efficient. We see no reason why the patentee should not have the benefit of his new and valuable mixer even if its construction be not set out in detail in the claims themselves. Very properly the description may be referred to when considering the scope and meaning of the claims which were clearly intended to cover a rotatable mounting."

In *Horton Mfg. Co. v. White Lily Mfg. Co.* 213 Fed. 471, the Court of Appeals for the Seventh Circuit, in holding the patent there before it valid, by reading into the claims a certain new feature, which distinguished the pat-

entee's device over the prior art structures, said at page 476, speaking through Circuit Judge Kohlsaat:

"Appellant insists that claims 2 and 4 in suit do not come within the construction herein given to the patent. Taken in connection with the drawings and specification, all four of the claims in suit call for a device in which the so-called line of cleavage, and cover freed from the burden of the operating mechanism, are essential elements. 'The object of the patent law,' says the Supreme Court in *Topliff v. Topliff*, 145 U. S. 171, 12 Sup. Ct. 831, 36 L. Ed. 658, 'is to secure to inventors a monopoly of what they have actually invented or discovered, and it ought not to be defeated by a too strict and technical adherence to the letter of the statute.' While claims 2 and 4 do not in terms call for the pinion at the outer end of the drive-shaft and the segmental-rack on the level handle, those features may, for the purpose of restricting the claim so that it shall meet the requirements of the inventive idea, be gathered from the specification. 'The subject is to be examined in the light of both specifications and of both sets of claims,' says the Supreme Court in *Klein v. Russell*, 19 Wall. 433-466, 22 L. Ed. 116, in speaking of the scope of the claim, and, proceeding, says: 'The Court should proceed in a liberal spirit, so as to sustain the patent and the construction claimed by the patentee himself, if this can be done consistently with the language which he has employed.'

"The scope of a patent must be ascertained from the entire instrument. *Burke v. Partridge*, 58 N. H. 351. Though a claim may be illustrated it cannot be enlarged by the language of the specification. *R. R. Co. v. Mellon*, 104 U. S. 118, 26 L. Ed. 639; *Yale Lock Co. v. Greenleaf*, 117 U. S. 554, 6 Sup. Ct. 846, 29 L. Ed. 952; *Continental Paper Bag Co. v. Eastern Paper Bag Co.* 210 U. S. 414, 28 Sup. Ct. 748, 52 L. Ed. 1122.

"'It is allowable,' says Judge Lowell in *Jones v. Barker* (C. C.), 11 Fed. 600, 'to construe the claims of a patent with reference to what has gone before, and to give the patentee the benefit of the restricted claim which results from such construction.' Thus it is apparent that, as stated by Walker on Patents, Sec. 185, 'when it becomes necessary to construe a claim narrowly in order that its novelty may not be nega-

tived by the prior art, or its validity otherwise overthrown, courts will give such a narrow construction, if they can do so consistently with the language of the claim and of the description.'

"From the whole patent, it is clear that, to make the claims 2 and 4 effective, the so-called line of cleavage, in applying the power to the stirrer-shaft, must be *preserved and therefore read into those claims.*

"Thus construed, and in view of the absence in the prior art and use of any device showing a wash tub having a cover freed from the weight of the impelling machinery and the so-called line of cleavage at the point where the power is applied to the drive-shaft, which carries the stirrer-shaft, and in view of the other novel features of the claims, we hold the patent to be valid."

In *Fowler & Wolfe Mfg. Co. v. McCrum-Howell Co.*, 215 Fed. 905, the Circuit Court of Appeals for the Second Circuit, in holding the patent there sued on valid by reading into the claims certain novel features not therein set forth, but which were disclosed in the drawings and described in the specification, in order to sustain the claims over the prior art, said at pages 909-910:

"We cannot understand why the court below should have reached the conclusion that an invention described in the specification but not included in the 'claims' cannot be protected by a patent. We regard the law as well established that the claims of a patent are to be construed in the light of the specification. It is quite true that the claims fix the extent of the protection furnished by the patent. *McClain v. Ortmayer*, 141 U. S. 419, 12 Sup. Ct. 76, 35 L. Ed. 800; *Sutter v. Robinson*, 119 U. S. 530, 7 Sup. Ct. 376, 30 L. Ed. 492; *Burns v. Meyer*, 100 U. S. 671, 25 L. Ed. 738. But it is equally true that the specification may be referred to for the purpose of limiting the claim although not available for expanding it. *McClain v. Ortmayer*, *supra*. *Dey-Time Register Co. v. W. H. Bundy Recording Co.* (C. C.), 169 Fed. 807, 813 (1909). In *Howe Machine Co. v. National Needle Co.*, 134 U. S. 388, 10 Sup. Ct. 570, 33 L. Ed. 963, Mr. Chief Justice Fuller, writing the opinion of the court, said:

"Doubtless a claim is to be construed in connection with the explanation contained in the specification and it may be so drawn as in effect to make the specification an essential part of it; but, since the inventor must particularly specify and point out the part, improvement, or combination which he claims as his own invention or discovery, the specification and drawings are usually looked at only for the purpose of better understanding the meaning of the claim, and certainly not for the purpose of changing it and making it different from what it is."

"We recognize the full force and effect of this statement of the law and do not believe that we are going contrary to its true meaning in holding that there can be read into the claims in this suit the qualification found in the specification that the tubes D are smaller than the others. By reading this qualification into the claims, they are made narrower and not broader.

"In *Duncan v. Stockham*, 204 Fed. 781, 123 C. C. A. 133 (1912), the court in the Seventh Circuit said:

"The claim in suit does not name all the various means shown in the specifications and drawings for connection of the means or elements named therein to make them operative in the combination; but we believe the claim is, nevertheless, sufficient for enforcement, on reference to the specifications. It is to be interpreted to include such connections and relations of the several means of the combination which are named, as implied therewith to make them operative, in conformity with the specifications."

"In *Consolidated Roller Mill Co. v. Walker*, 138 U. S. 124, 11 Sup. Ct. 292, 34 L. Ed. 920 (1890), the Supreme Court declared it saw no reason to doubt the correctness of the following statement made by the court below:

"To understand the nature of the invention intended to be covered by the first claim, resort must be had to the specification, and we there find that the "swivel boxes" are essential to the contemplated greater movement at one end of the shaft than at the other, whereby is effected "the tightening of the belt or belts at one side of the machine, without disturbing those at the other." This is apparent on the face of the paragraph hereinbefore quoted at length; and the expert testimony is direct and convincing, that, to

the practical working of the described device as a belt tightener, this swiveling feature is indispensable. Without the swiveled boxes Gray would not have "independently adjustable bearings." True, those boxes are not expressly mentioned in the claim, but we think they are to be regarded as entering therein by necessary implication, for the reason just stated, as well as by force of the words "as shown." Moreover, the prior state of the art would limit the claim to the specific organization shown and described.'

"So in a number of cases the Supreme Court has sustained the validity of a patent which otherwise might have been invalid by importing into the claim the particulars of the specification. See *Seymour v. Osborne*, 11 Wall. 516, 547, 20 L. Ed. 33 (1870); *The Corn Planter Patent*, 23 Wall. 181, 218, 23 L. Ed. 161 (1874); *Westinghouse v. Boyden Power Brake Co.*, 170 U. S. 537, 558, 18 Sup. Ct. 707, 42 L. Ed. 1136 (1897); *Carnegie Steel Co. v. Cambria Iron Co.*, 185 U. S. 403, 432, 22 Sup. Ct. 698, 46 L. Ed. 968 (1901)."

In *Rubber Company v. Goodyear*, 9 Wall. 788, 795, 19 L. Ed. 566, it was said:

"A patent should be construed in a liberal spirit, to sustain the just claims of the inventor. This principle is not to be carried so far as to exclude what is in it, or to interpolate anything which it does not contain. But liberality, rather than strictness, should prevail where the fate of the patent is involved, and the question to be decided is whether the inventor shall hold or lose the fruits of his genius and his labors."

See also:

Century Electric Co. v. Westinghouse, 191 Fed. 350 (C. C. A. 8).

THE FACT THAT THE PARTICULAR FORM OF THE PARKER INVENTION SHOWN IN HIS DIAGRAM WAS NOT THE FORM USED COMMERCIALLY BY THE PLAINTIFF AND DEFENDANTS IS IN NO WAY PREJUDICIAL TO THE PARKER PATENT OR THAT IT WAS NOT PUT ON THE MARKET BY THE PATENTEE, PARKER, AVAILS NOTHING TO THE DEFENDANTS.

In *Troy Carriage Co. v. Kinsey Mfg. Co.* 247 Fed. 672, Circuit Court of Appeals for the Sixth Circuit, Circuit Judge Denison said (p. 676):

“If, as is held in the *Paper Bag Case*, 210 U. S. 405, 28 Sup. Ct. 748, 52 L. Ed. 1122, a patent is not to be denied its reasonable and apparent validity and scope merely because its owner had deliberately withheld it from commercial use, much less can such denial be claimed where the first owner, for unknown reasons, did not get it into public use, but where the second owner has put it into very general use. The fact that the second owner discovered the patent in the Patent Office, and made the first move to buy it, and bought it for a small price, cannot be of much, if any, importance. The patent must stand or fall on its own merits.”

In *Hildreth v. Mastoras*, 257 U. S. 27, the Supreme Court in speaking through the late Chief Justice Taft in holding the patent there involved valid and infringed and disposing of defendant’s contention of inoperativeness and the argument that the particular form shown in the patent there sued on was never used commercially, said at page 34:

“It is not necessary, in order to sustain a generic patent, to show that the device is a commercial success. The machine patented may be imperfect in its operation; but if it embodies the generic principle, and works, that is, if it actually and mechanically performs, though only in a crude way, the important function by which it makes the substantial change claimed for it in the art, it is enough. *Telephone cases*, 126 U. S. 1, 535; *Mergenthaler Linotype Co. v. Press Publishing Co.*, 57 Fed. 502, 505.”

PRIOR ART IMPOSES NO LIMITATION ON THE PARKER INVENTION.

"Has the patentee added anything of value to the sum of human knowledge, has he made the world's work easier, cheaper and safer, would the return to the prior art be a retrogression? When the court has answered this question, or these questions, in the affirmative, the effort should be to give the inventor the just reward of the contribution he has made. The effort should increase in proportion as the contribution is valuable. Where the court has to deal with a device which has achieved undisputed success and accomplishes a result never attained before, which is new, useful and in large demand, it is generally safe to conclude that the man who made it is an inventor."

* * * * *

The keynote of all the decisions is the extent of the benefit conferred upon mankind. Where the court has determined that this benefit is valuable and extensive it will, we think, be difficult to find a well considered case where the patent has been overthrown on the ground of nonpatentability." (*O'Rourke Engineering Const. Co. v. McMullen*, 160 Fed. 933, 938, 939, Circuit Judges *Lacombe, Coxe and Ward*.)

On the issue of validity and scope of the Parker patent we should first inquire whether the concept on which it was granted is novel and involves invention. The Parker pioneer concept falls within that class of pioneer inventions whose novelty depends largely on a new method of operation rather than on particular circuits, switches and buttons utilized in combination to give physical expression to that conception.

In *Burdett-Rowntree v. Standard Plunger Co.*, 196 Fed. 43, (C. C. Pa.) District Judge McPherson in sustaining the Rowntree patent, the novelty of the claims asserted residing primarily in controls for electric elevators, one of which claims reads:

"In an automatic elevator, a hoisting mechanism, means for controlling the same, said means operating

to start the car and to arrest it automatically at any predetermined landing, a push-button for each floor at which the car is to stop, a circuit for each push-button, and a signal, actuated by the operation of each push-button, for signifying in advance of the starting of the car the floor at which the car is desired to stop, as and for the purpose set forth."

said at page 46:

"Every element is old, and the defendant contends that no invention can possibly be involved in arranging old and well-known signals in close and convenient proximity to an old and well-known motor. * * * While it is not a tangible product that has been improved, *the new method of operation produces a clearly perceptible advance in the art.*"

This decision was affirmed by the Court of Appeals for the Third Circuit, 197 Fed. 743 (Circuit Judges Gray and Buffington and District Judge Bradford), the court saying p. 744:

"The opinion of the learned judge in that court is satisfactory to us in both its reasoning and its conclusions and we adopt it as the opinion of this court."

The Circuit Court of Appeals for the Third Circuit has repeatedly quoted with approval from this decision. See for example, *Mead-Morrison Mfg. Co. v. Exeter Mach. Works*, 225 Fed. 489, 496. Likewise the Court of Appeals for this and other circuits has cited the Rowntree case with approval, see, for example, *Willard v. Union Tool Co.*, 253 Fed. 48 at 53, 54 (C. C. A. 9).

A patented invention is a mental concept. The machine, process or product is but its material reflex and embodiment.

In *H. E. White Co. v. Morton E. Converse & Son Co.*, 20 F. (2d) 311 (C. C. A. 2), the court in holding the patent there involved valid and infringed, said speaking through Judge Learned Hand (p. 313):

"While the statute grants monopolies only for new structures, and not for new uses, invention is not to

be gauged by the necessary physical changes, so long as there are some, but by the *directing conception which alone can beget them.*" Citing authorities.

In a previous case, *Traitel Marble Co. v. Hungerford Brass & Copper Co.*, 18 F. (2d) 66, the same court, Manton, Hand and Swan, Circuit Judges, in sustaining the Calkins patent said (p. 68) :

"Assuming, for argument, that the law is absolute that there can be no patent for the new use of an old thing, that is because the statute allows no monopolies merely for ideas or discoveries. If the thing itself be new, very slight structural changes may be enough to support a patent, when they presuppose a use not discoverable without inventive imagination. We are to judge such devices, not by the mere innovation in their form or material, but by the purpose which dictated them and discovered their function. Certainly the art would have waited indefinitely, in the light of all that McKnight disclosed for Calkins' contribution to its advance. It will not serve now to observe how easy it was, given the suggestion, to change his invention into that of the patent in suit."

See, also:

National Cash Register Co. v. Boston Cash Indicator Co., 156 U. S. 502, 514.

There is no prior art which requires any limitation whatever to be placed upon the language of the claims in suit.

Parker was a *pioneer*. He brought into existence an entirely novel "Control" for electric elevators.

The Master, who had the Parker invention fully explained to him by the inventor, plaintiff's engineer, Mr. Crabbe, and other witnesses, fully appreciated how the problem solved by Parker had long eluded the search of elevator engineers; how it was projected into a very highly developed art by Parker, a non-member of the elevator industry; and how once appreciated by plaintiff's engineers,

it was embodied in the Otis "Signal Control" elevators, the success of which (R. 565):

"is due, in large measure to those features that resulted from Parker's disclosure."

The most pertinent art relied upon by the defendants is a far cry from anything that corresponds to the Parker invention. Nothing in the art would accomplish the Parker results nor attain his objects.

**THE CLOSEST REFERENCE (THE IHLDER PATENT OF 1902)
NEITHER MEETS THE PARKER CLAIMS NOR DOES IT EVEN
SUGGEST HIS INVENTIVE CONCEPT. ITS OPERATION IS
DIAMETRICALLY OPPOSED TO THAT OF PARKER.**

The Parker patent claims are entitled to a liberal interpretation. They clearly include defendants' "Automatic Stopping Control."

The Master finds (R. 560) that the Ihlder patent (R. Vol. 3, 369) "*is the closest reference*," but realizing and appreciating the Parker invention and what it had accomplished, he was enabled to and did clearly show that it neither embodied nor approached the Parker invention, nor secured its results nor attained its objects. It was with this in mind that he pays the high tribute to Parker already set out. He says of the Ihlder patent (R. 560):

"It shows a control for an electric elevator which includes means for automatically stopping the car at a previously designated floor. *Push buttons* are provided at the landings and in the car, the *operation of any one of which* sets up a circuit which *starts and maintains* the car running, and a second circuit which, through a selector, brings the car to a stop at the desired floor by breaking the running circuit through the motor. *The control can be used only to move the car to one floor and stop it.* It cannot be operated to stop at successive floors nor stopped by a waiting passenger while it is in motion.

"Again the system is non-interfering, in that when a push button at one floor has been pressed the pres-

sure of any push button at other floors will not interfere with the operation of the elevator.' Page 1, lines 56 to 60, Ihlder Patent.

"One of the principal features of the patent in suit is that it provides a means whereby a passenger can stop the car and enter it after it has been started by the operator. The Ihlder control provides means for starting the car from a landing, a feature that would be undesirable in Parker's control. Ihlder does show a floor selector much the same in principle as Parker's. The differences in function pointed out result from differences in structure. There is no holding circuit in Ihlder which can be broken by any stopping circuit set up either in the car or at the landings. The running circuit once established can be broken only by one stopping circuit, the selection of which is made when the car is started."

This statement of the Master is also confirmed by the testimony of defendants' expert, Mr. Doble, on cross-examination (R. 487-488).

In the Ihlder construction, instead of there being *only one control means* for causing the *starting* of the car, *there are as many control means as there are push buttons* in the car and push buttons on the landings, *all of them being used for starting the car.*

In the Ihlder construction there is a series of *push buttons* for *starting* the car from the inside of the car, and there are *hall push buttons for starting* the car and calling the car to each landing. Hence if there were fifteen floors served by the Ihlder construction, there would be at least *thirty buttons*, fifteen in the car and fifteen at the landings, *from which the car could be started*. After the car has been started by a person pushing a button at a landing, it cannot then be stopped from any other landing.

In the Ihlder patent there is no selective means, comprising manually operable circuit closers to be actuated prior to the arrival of the car at selected stopping points,

and there is no automatic circuit closer actuated upon the arrival of the body (the car) at said selected stopping point for the purpose of stopping the car.

The Ihlder patent has none of the elements of the Parker patent in suit when the electrical connections of the switches involved are considered, so that the circuits and mechanisms which go to make up the Parker combination are entirely lacking from the Ihlder patent.

The lower court after having given (R. 644)—

“more study in fact than I have found necessary to devote to any case presented during my experience on the bench.”

also selects from the prior art set up by the defendants, the same Ihlder patent above discussed as the basis for his being (R. 638)—

“totally unable to agree with the master” on the question of infringement. His discussion of the Ihlder patent shows that he entirely failed to appreciate the Parker invention, and on the contrary that he completely misunderstood it, for immediately after quoting from the Parker patent, he refers to the drawings as showing (R. 636)—

“means through electrical circuits whereby, by the operation of the push buttons, the power of the hoisting motor would be applied.”

and again, in referring to the elements of the Parker patent separately, he refers (R. 638) to the use of *push buttons* at the floors or in the car which would operate through electrical magnets to *connect* the current feeding the hoisting motor. In other words, while quoting from the Parker patent, he reads the Parker disclosure as contemplating the use of *push buttons* located both in the car and at the landings *for starting the car*.

His statements concerning the *starting of the car by push buttons in the car and at the landings* are entirely opposed

to the disclosure of the Parker patent, and would completely defeat its purpose of *starting* the car—

“either up or down in the shaft * * * entirely and singly within the *manual control of the car operator*,” and not from push buttons at landings.

His misconception of the Parker invention thus causes him to draw an erroneous analogy between the Parker invention and the old fashioned push button elevators, where the car was generally started by a passenger pushing a button in the car, and which carried the passenger to the landing for which the button was pushed, and where also the car was started and brought to a given landing to pick up a passenger by his pushing of a button at the landing where he was standing.

In the use of these old fashioned push button elevators, once a button had been pushed in the car for a certain landing, the car was carried to that landing and stopped at it, and all passengers at any other landing had to wait until that run was completed.

Anyone having the slightest concept of elevator practice must realize that such a construction and operation would entirely defeat the very objects of the Parker invention, and would defeat its use, in operator controlled elevators used in modern office buildings.

Although the Otis Elevator Company had been making push button elevators for years prior to the Parker invention for dwellings and small apartments, the constructions used in their operation suggested nothing whatever to them with respect to the “Control” for electric elevators of the Parker patent, which so controlled the rest of the elevator mechanism that the car had to be started *entirely and singly* by the operator throwing a car switch in the car to “on” position, and that caused the car to be automatically stopped at any number of selected floors in proper sequence by the setting up and operation of a secondary circuit

through push buttons in the car and at the various landings.

That the lower court, having held the Parker patent valid, disagreed with the Master and unwarrantably limited its claims in suit beyond their plain language is clear—

(1) Because he failed to appreciate the Parker invention; and

(2) Because of his attempted analogy to the control of push button elevators to it when there is none.

This is shown by his statements where he speaks of the (R. 636)—

“means through electrical circuits whereby, by operation of the push buttons, the power of the hoisting motor would be applied,”

(*i. e.*, the elevator started), and where he refers to the car being started and run by the use of *push buttons* at the floors or in the car which would operate to connect the *current feeding the hoisting motor*, and of electrically controlled elevators such as are common in apartment houses and some business buildings, whereby, by *means of push buttons* at floor landings and in the car, the elevator can be *started* and will be stopped automatically.

His comment concerning the Ihlder patent, evidently taken from the Master's report as to that system not being non-interfering, and his statement that Ihlder had (R. 639)—

“the particular purpose of making his non-interfering, but as defendants' counsel argues, the mechanism of Ihlder's system might easily be adjusted, using ordinary engineering skill, so as to be either ‘interferring’ or ‘non-interferring’ ”

demonstrates his lack of appreciation of the record, which shows conclusively that although skilled elevator engineers were familiar with similar push button constructions, these had nothing which enabled engineers to solve the problem solved by Parker, a non-member of the elevator industry.

Moreover, the lower court does not suggest any plan or scheme of making the Ihlder construction non-interfering, and if it was made non-interfering, this would defeat the whole purpose of the Ihlder disclosure, as it is exactly what Ihlder does not want, for with such arrangement the elevator could be taken away from the passenger using it by some other waiting passenger.

Even if the Ihlder circuits could be made non-interfering (although there never were), it would be a wide departure from the Parker disclosure because the objectionable features overcome by Parker would still remain, whereby any waiting passenger on any landing could start and bring the elevator to a landing instead of being started only by the car operator *entirely* and singly within the car, as Parker so fully discloses.

In addition to this, the Ihlder construction would run by every landing at which passengers were waiting except the one to which it was going in response to a button pushed in the car or to which it was coming in response to a hall button pushed by a passenger standing at a given floor.

One of Parker's primary purposes *was to prevent the car being started by a person at any landing or by anyone other than the car operator within the car*, and as that is plainly set out in the Parker disclosure, it is inherent in his invention and every claim must be read with that purpose in mind. This clearly excludes such structures as Ihlder from consideration as having any bearing on the Parker invention. The Ihlder 1902 patent serves only to magnify the Parker invention and what it accomplished.

If, as the lower court suggests, ordinary engineering skill could have rendered the Ihlder circuits either interfering or non-interfering, why was this not done?

Even if some engineer had done this, he would have completely defeated the stated purpose and objects of the

Ihlder patent, and would have been led still further away from the Parker inventive concept than the Ihlder patent showing, and would still have in such construction the very features which would defeat the purpose Parker accomplishes, and retain those very features which he found so objectionable in elevator practice. Defendants are free to use the Ihlder patented structure as the patent expired more than thirteen years ago. Why didn't they use it instead of appropriating the Parker invention?

The lower court, having referred to the Ihlder patent and using it for his unwarranted analogy to the Parker invention, disposes of the other art by saying (R. 639) :

“It would only serve to prolong this opinion to unnecessary length were I to discuss and analyze the several prior art patents which were introduced in evidence, all referring to systems for the *starting* and stopping of elevator cars *by electrical means, including the use of push buttons* at the floors and in the car,” again demonstrating his fundamental error.

And to the statement—

“As to the form and mode of operation of the devices represented, there is no dispute”

he might well have added, as did the Master, that none of these showed any structure which would attain the results accomplished by the use of the Parker invention.

The above discussion of the lack of analogy between the push button systems of Ihlder and others, wherein means were provided for starting the car from various landings and in which none of the results of the Parker patent could be secured, amply shows that the Master was right in his conclusion that (R. 674)

“the invention, judged by the results, is a radical step forward. Parker is entitled to high standing for the inventive thought expressed in his patent.”

This finding of the Master is amply supported not only from plaintiff's testimony, but from that of defendants'

own electrical engineer and witness, Mr. DeCamp, who shows, that previous to October, 1925, which was after the issue of the Parker original patent, and after the Otis Elevator Company's "Signal Control" elevators had been installed at the Standard Oil Building in New York and the Pacific Telephone & Telegraph Building in San Francisco utilizing this invention, he had (R. 399)—

"never seen any drawings or descriptions of any devices of elevators which were *started only* by an operator operating a switch *within the car* and which could be automatically stopped either by pushing buttons within the car or from the landing, and the *starting could not be done from the push buttons*. I had never heard of anything like it."

He also testified (R. 397) that the defendants use a structure that will accomplish just this result in the Pacific Finance installation by stating that when the car is started by the operator moving a switch to the "up" direction, and when the car switch is thrown to this position, this completes—

"the circuit which causes the elevator motor to be driven in the up direction."

"The pushing of a button in the car or the pushing of a button at a landing causes the car ultimately, through the various chain of mechanism and wiring that I have described, to automatically stop at any given landing."

The Master fully appreciated that the defendants were attempting to interject into the case through their witness DeCamp, a lot of unnecessary details so far as the question of invention and infringement of the patent is concerned, and focused the issue by a series of questions (R. 351, *et seq.*).

The Master makes clear the rule which has been frequently enunciated by this Court. (*Stebler v. Riverside*, 205 Fed. 735, C. C. A. 9.) He says (R. 199)—"It is not a question * * * as to whether the Parker patent includes the features of the Standard Oil installation. The question

is whether the Standard Oil installation includes the features of the Parker Patent."

There is nothing in the Ihlder patent that suggests the Parker invention. It suggested nothing to skilled engineers during the entire period of twenty years of its existence prior to the Parker invention which enabled a solution of the troublesome problem solved by Parker.

Its construction and operation do not meet any of the Parker claims here asserted. Its operation is diametrically opposed to the Parker concept and cannot accomplish the Parker results.

The defendants, having appropriated the Parker "Control," cannot escape the clear infringement of the Parker claims through any such disclosure as Ihlder or any other art. *Kings County Raisin & Fruit Co. v. U. S. Consolidated Seeded Raisin Co.*, 182 Fed. 59.

The "closest reference" (Ihlder) as well as the other art set up by defendants, augment the Parker invention and requires a liberal, instead of a restricted, interpretation of his claims.

Had the lower court understood the Parker invention; had he appreciated that it solved a problem neither contemplated nor attained by anyone else in the art; and had he not made an entirely erroneous comparison between the construction of the Parker and Ihlder patents (the latter showing nothing corresponding to Parker) he undoubtedly would have agreed with the Master and held the Parker claims infringed, for he says (R. 637):

"If no such means of electrical control had theretofore existed and Parker had, for the first time, designed a system which supplied a new and highly desirable form long looked for by the manufacturers of elevators, the claim of primary and pioneer invention might be well predicated."

The record conclusively shows, as the Master found from

the testimony of witnesses who appeared before him, that previous to the Parker invention no such "Control" for electric elevators existed (R. 561, 565, 567, 569, 574), and that Parker devised an entirely new system and means of "Control" which supplied a new and highly desirable form and result long looked for by manufacturers of elevators, and solved the problem which elevator engineers, with full knowledge of the art, had failed to solve. (R. 574.)

**THE CLAIMS OF THE PARKER PATENT HERE ASSERTED ARE
PLAINLY DIRECTED TO STRUCTURAL COMBINATIONS AND
NOT MERE FUNCTIONS.**

The weakness of defendants' attack, in the lower court, on plaintiff's patent is amply demonstrated by their contention that the claims are invalid because drawn for *mere functions* of an apparatus.

The claims should, under the authorities, be construed in connection with the disclosure of what Parker sought to and did accomplish and not as mere abstract language.

Thus construed the essence of all these claims, as clearly and definitely brought out in each of them, is the combination of physical things, namely, circuits and switches so arranged that when the operator moves the car switch within the car to on position an electrical circuit is completed, for driving this elevator motor, and maintained, in combination with secondary circuits and switches, which circuits, when initiated from within the car or the landings, are automatically afterwards completed for initiating, and ultimately, stopping the car.

No attack can successfully be made on any of the claims on the ground that they cover *only mere functions*.

The courts have repeatedly and uniformly sustained claims of the same general character where the function of

the elements is included in the claims, over attacks made on such claims on the ground of being functional.

It has been repeatedly held not only in numerous recent decisions of the Supreme Court but continuously, that statements which contain functions, results accomplished or purposes to be served are properly included in patent claims as a means for defining the operation of the mechanism. Each of the statements in the claims of the Parker patent are properly drawn, have been approved by the Patent Office as proper and are clearly so under the statutes and the authorities. (See cases, *infra*.)

That the claims are directed to true structural combinations having certain characteristics and features co-operating one with another is shown by the preceding, as well as the following analysis of claims 3 and 22.

Claim 3 of the Parker patent comprises in combination—

(1) **a guided movable body.**

This is the elevator car.

(2) **an electrical controlling circuit.**

This is the starting and running circuit which is completed upon the manual operation of the car switch to cause power to be applied to the elevator motor to start and run the car.

(3) **a switch on said body manually operable for closing said circuit.**

This is the car switch in the Parker patent located within the elevator car.

(4) **means holding said switch in circuit closing position.**

This is the circuit and mechanism which maintains the "electrical controlling circuit" closed independent of the car switch, and therefore maintains the direction switch in operative condition, permitting the return of the car switch operating handle to "off" position without interrupting the running of the car.

(5) **selective means for actuating the release of said switch holding means to stop said body at one or more predetermined points in the line of its travel, said selective means comprising a manually operable circuit**

closer to be actuated prior to the arrival of the body at a selected stopping point and an automatic circuit closer actuated upon the arrival of the body at said selected stopping point.

This element of the claim includes the push buttons in the car or the push buttons at the floors, and the various switches, circuits and mechanisms which act automatically to cause the stopping of the car at any floor for which, in the case of car buttons, a button in the car has been pressed, or in the case of hall buttons, at which a button in the hall has been pressed. The push buttons control circuits which are completed as the car approaches the floors for which the buttons are provided. The completion of these circuits accomplishes two results, (a) the initiation of the stopping of the car which is brought to rest level with the floors for which buttons are provided; and (b) the release of the holding means whereby the car switch must be operated again to start the car after each stop.

Claim 22 defines a control system for an elevator car, comprising in combination—

(1) a plurality of control means, one for each of a plurality of landings, operable from without the car to cause the stopping of the car at the landings for which the control means are operated.

This element of the claim includes the push buttons at the landings, switching mechanism controlled by car movement, circuits, switches and other apparatus which are controlled by the push buttons and by this mechanism, whereby the car is automatically brought to a stop at landings at which push buttons have been pressed. "Operable from without the car", as specified in this claim, means that the push buttons, included as a part of this portion of the claim, are located at the landings.

(2) only one control means for causing the starting of the car, said one control means being operable only from within the car.

This is the control means by which alone the circuit to start the car is completed. When the car switch handle, which is a part of this means, is thrown to "on" position, the electrical controlling circuit for starting and running the car is completed, and is automatically maintained after the car switch handle is

moved to "off" position, so that the car will continue to run until automatically stopped by a secondary controlling means in response to buttons pushed either in the car or at the landings.

This claim, as all others, must be read in view of the stated purpose of Parker's "Control." It covers the combination of elements disclosed and described whereby the car is started by a single "Control" means operable only from within the car, and automatically caused to stop upon the pressing of any one of a plurality of push buttons which sets up a circuit, which when completed by the selector, will cause the car to slow down and stop. *It is of vital necessity, in order to accomplish the results of the Parker invention, that the starting and stopping circuits be so co-related as to so function at the proper time in relation to each other.*

These circuits are thus arranged in defendants' installation.

By reading the other claims here asserted in the light of the specification and drawings, as they should be read, it at once becomes clear that no attack can successfully be made on these claims on the ground that they cover *only mere functions.*

CASES SHOWING THE PROPRIETY OF THE FORM OF CLAIMS USED IN THE PARKER PATENT.

To illustrate this, some of the more pertinent claims under consideration by the Supreme and other courts, will be discussed, so that this Court may see by comparing the so-called functional statements with similar statements in claims approved by the courts how highly proper and desirable such statements are for the proper protection of the patentee and the public.

In the recent case of *Eibel Process Company v. Minne-*

sota & Ontario Paper Company, 261 U. S. 45, the Supreme Court had before it the Eibel Patent No. 845,224,

"For an improvement on Fourdrinier paper-making machines, whereby, mainly through a substantial elevation of the breast-roll end of the moving screen or 'paper-making wire', the liquid stock discharged upon the screen acquires through gravity an additional speed, enabling it to keep pace with the screen at the critical paper-forming point, thus avoiding injurious disturbances of the stock when the screen moves very rapidly, and making possible a much speedier production of good paper than was theretofore obtained from the machines without the improvement."

This was held by the Supreme Court, through the opinion of the late Chief Justice Taft, to properly cover a new and useful invention.

Among the six claims asserted and considered by the court was claim 12, which reads as follows (p. 70) :

"12. In a Fourdrinier machine, a downwardly-moving paper-making wire, *the declination and speed of which are so regulated that the velocity of the stock down the declining wire, caused by gravity, is so related to the velocity of the wire in the same direction, that waves and ripples on the stock are substantially avoided and the fibers deposited with substantial uniformity on the wire*, substantially as described."

In considering this claim and in holding it valid, the late Chief Justice Taft says (p. 71) :

"This comes nearer to being a process claim but whether it is or not the defendant infringes it."

In this *Eibel Co. v. Paper Co.* case the only element positively included was a downwardly-moving paper-making wire in a Fourdrinier machine. All of the rest of the claims related to the regulation of the declination and speed of this paper-making wire, by which the waves and ripples on the stock are substantially avoided and the fibres deposited with substantial uniformity on the wire.

Certainly, if the various claims of the Eibel patent sus-

tained by the Supreme Court in this case are proper and valid claims, there cannot be the slightest doubt about the propriety of all of the expressions in each of the claims of the Parker patent.

In *Hildreth v. Mastoras*, 257 U. S. 27, the Dickinson patent for a candy-pulling machine was involved. The late Chief Justice Taft writing the opinion of the court and sustaining Dickinson's claim, again approved claims containing just such statements as are in the Parker patent. The claim there involved reads (p. 32) :

“A candy-pulling machine comprising a plurality of oppositely-disposed candy hooks or supports, a candy-puller, and means for producing a specified relative in-and-out motion of these parts for the purpose set forth.”

The italicized portion of this claim certainly contains a statement of the results accomplished, purposes to be served, or function, quite as much as the Parker claims.

The Supreme Court held the machine patented as embodying (p. 34)—

“the generic principle, and works, that is, if it actually and mechanically performs, though only in a crude way, the important function by which it makes the substantial change claimed for it in the art,”

and that it was, *therefore, a pioneer*. Citing *Telephone Cases*, 126 U. S. 1, 535; *Mergenthaler Linotype Co. v. Press Publishing Co.*, 57 Fed. 502, 505.

In *Abercrombie & Fitch Company, et al. v. Baldwin, et al.*, 245 U. S. 198, the Baldwin Reissue Patent No. 13,542, was before the court. The court states the purposes and functions of the patent:

“The patent relates to an acetylene gas generating lamp, with an upper reservoir for water and a lower receptacle for calcium carbide, connected by a tube, with a rod extending through the tube and subject to manipulation from above. The inventive features involved lie in securing a proper flow of the water through the tube and access for it to the unslaked car-

bide, the first, by adopting a comparatively large tube with a size of rod suitably restricting its capacity; the second, by manipulating the rod when necessary to break up slaked carbide at the mouth of the tube in the lower receptacle."

and specifically referring to two of the claims holds them valid and infringed, notwithstanding the fact that each of these claims defines the functional purpose of the rod as "operating to restrict and thus control the flow of water to the carbide."

Claim 4 reads as follows (p. 205):

"4. In a lamp of the kind described, the combination with a water-reservoir, and a receptacle for calcium carbide, of a water-tube extending from the former a considerable distance into the latter and adapted to be embedded in the mass of carbide in the receptacle, and a rod extending through the water-tube, and constituting a stirrer to break up slaked carbide around the outlet of the water-tube, *the rod operating to restrict and thus control the flow of water to the carbide, as set forth.*"

The italicized portion was italicized in the Supreme Court opinion.

The court held that the controversy mainly centered "in the water-feeding duct or tube and its restriction by means of a wire or rod and the shape and use of the rod *to pierce or stir the carbide.*"

An examination of the other claims shows similar statements.

In *Cimiotti Unhairing Company v. American Fur Refining Company*, 198 U. S. 399, which the Supreme Court cites in the paper bag case above referred to, the court approves the following claim, which contains statements showing the purposes to be served or the results accomplished, and shows that such statements are not functional in the way in which they are sometimes interpreted when functional statements have been held to be objectionable.

"8. The combination of a fixed stretcher-bar, means

for intermittently feeding the skin over the same, a stationary card above the stretcher-bar, a rotary separating-brush below the same, and mechanism, substantially as described, whereby the rotary brush is moved upward and forward into a position in front of the stretcher-bar, substantially as set forth.” (p. 409.)

The court after approving this claim says (p. 410) :

“In making his claim the inventor is at liberty to choose his own form of expression, and while the courts may construe the same in view of the specifications and the state of the art, they may not add to or detract from the claim.”

In *Keystone Manufacturing Company v. Adams*, 151 U. S. 139, the Supreme Court in sustaining the Adams patent of October 15, 1872, for an improved corn-sheller, again approves just such statements and claims as are here criticized.

The claim there before the court read (p. 142) :

“The combination with a cornsheller of a series of wings, wheels, or projections, so arranged on a shaft as to revolve in the same direction which the corn is running, and so placed relative to the throat as to force into the machine all misplaced or hesitating ears, substantially as specified.”

In *Expanded Metal Company v. Bradford*, 214 U. S. 366, the single claim of the Golding patent of October 9, 1894, for an expanded sheet metal, read as follows (p. 377) :

“The herein described method of making open or reticulated metal work, which consists in simultaneously slitting and bending portions of a plate or sheet of metal in such manner as to stretch or elongate the bars connecting the slit portions and body of the sheet or plate, and then similarly slitting and bending in places alternate to the first-mentioned portions, thus producing the finished expanded sheet metal of the same length as that of the original sheet or plate, substantially as described.”

The court in approving this claim says (p. 377) :

“It is thus apparent that the method covered by the

claim of the patent is accomplished by the two operations indicated and performed in the manner pointed out in the specifications.”

(p. 379.) “But the patent in suit, embraced in the claim allowed, shows more than a mere method of making open meshes by simultaneously cutting and stretching the metal. It shows a method by which the metal is first cut and stretched in the manner indicated to make the half diamond, and then a second operation, coordinating with the first and completing the mesh by the manner in which it is performed in connection with the first. It is the result of the two operations combined which produces the new and useful result covered by the claim allowed in the Patent Office, and, which, when read in connection with the specifications, shows substantial improvement in the art of making expanded metal work.”

The court further says (p. 381) :

“The important thing in this patent is a method of procedure, not the particular means by which the method shall be practiced.”

In *Morley Sewing Machine Co. v. Lancaster*, 129 U. S. 263 (1889), claims of this type were upheld by the Supreme Court reversing the decree of the Massachusetts Circuit Court. Claim 1 is representative and is as follows (p. 266) :

“The combination, in a machine for sewing shank-buttons to fabrics, of button-feeding mechanism, appliances for passing a thread through the eye of the buttons and locking the loop to the fabric, and feeding mechanism, substantially as set forth.”

The court said at pages 283 and 284 :

“Applying these views to the case in hand, Morley having been the first inventor of an automatic button-sewing machine, by uniting in one organization mechanism for feeding buttons from a mass, and delivering them one by one to sewing mechanism and to the fabric to which they are to be secured, and sewing mechanism for passing a thread through the eye of the button, and securing it to the fabric, and feeding mechanism for moving the fabric the required dis-

tances to space the buttons, another machine is an infringement, in which such three sets of mechanism are combined, provided each mechanism, individually considered, is a proper equivalent for the corresponding mechanism in the Morley patent; and it makes no difference that, in the infringing machine, the button-feeding mechanism is more simple, and the sewing mechanism and the mechanism for feeding the fabric are different in mechanical construction, so long as they perform each the same function as the corresponding mechanism in the Morley machine, in substantially the same way, and are combined to produce the same result."

The court said further at page 286:

"Those claims are not for a result or effect, irrespective of the means by which the effect is accomplished. It is open to a subsequent inventor to accomplish the same result, if he can, by substantially different means. The effect of the rule before laid down is merely to require that, in determining whether the means employed in the Lancaster machine are substantially the same means as those employed in the Morley machine, the Morley patent is to receive a liberal construction, in view of the fact that he was a pioneer in the construction of an automatic button-sewing machine, and that his patent, especially in view of the character and terms of the four claims in question, is not to be limited to the particular devices or instrumentalities described by him, used in the three main elements of his machine, which, combined together, make it up. This is the principle applied by this court in *Consolidated Valve Co. v. Crosby Valve Co.*, 113 U. S. 157."

In *Paper Bag Patent Case*, 210 U. S. 405 (1908), the claims involved were the first, second and seventh, of which the first is representative and is as follows (p. 417):

"In a paper bag machine, the combination of a rotating cylinder provided with one or more pairs of side forming fingers adapted to be moved toward or from each other, a forming plate also provided with side forming fingers adapted to be moved toward or from each other, means for operating said fingers at definite times during the formative action upon the bag

tube, operating means for the forming plate adapted to cause the said plate to oscillate about its rear edge upon the surface of the cylinder during the rotary movement of said cylinder, the whole operating for the purpose of opening and forming the bottom of the bag tube, and means to move the bag tube with the cylinder.' ”

These claims were held to be valid by the Circuit Court, which holding was affirmed by the Circuit Court of Appeals for the First Circuit and by the Supreme Court.

As stated by the Circuit court (p. 417) :

“ ‘The pith of the invention is the combination of the rotary cylinder with means of operating the forming plate in connection therewith, limited, however, to means which cause the plate to oscillate about its rear edge.’ ”

The Supreme Court said (p. 421) :

“ Counsel, however, contends that the Circuit Court, in its decision, virtually gave Liddell a patent for a function by holding that he was entitled to every means to cause the forming plate to oscillate about its rear edge.

“ The distinction between a practically operative mechanism and its function is said to be difficult to define. Robinson on Patents, sec. 144, *et seq.* It becomes more difficult when a definition is attempted of a function of an element of a combination which are the means by which other elements are connected and by which they coact and make complete and efficient the invention. But abstractions need not engage us. *The claim is not for a function, but for mechanical means to bring into working relation the folding plate and the cylinder.* This relation is the very essence of the invention, and marks the advance upon the prior art. It is the thing that never had been done before, and both the lower courts found that the machines of the Continental Company were infringements of it. It is not possible to say that the findings of those courts on that fact or on the fact of invention were clearly wrong, notwithstanding the great ability of the argument submitted against them.”

In *Von Schmidt v. Bowers*, 80 Fed. 121 (C. C. A. 9), a decision of this Court and a leading case in this Circuit, contention was made that complainant's claims are for functions and results and constitute merely aggregations. Firmly turning down this contention, this Court said, p. 147 *et seq.*:

"By section 4888 of the Revised Statutes it is provided that every inventor, when making his application for a patent, shall file in the patent office a written description of his invention; and, if the application be for a machine, he is required to explain the principle thereof, and the best mode in which he has contemplated applying the principle, so as to distinguish it from other inventions. But he is not necessarily limited to the one mode shown. The pioneer inventor is entitled to a generic claim, under which will be included every species included within the genus. In addition to such generic claim, he may include in the same application specific claims for one or more of the species. *Machine Co. v. Lancaster*, 129 U. S. 263, 9 Sup. Ct. 299; *Clough v. Barker*, 106 U.S. 166, 1 Sup. Ct. 188; *Clough v. Manufacturing Co.*, 106 U. S. 178, 1 Sup. Ct. 198; Rob. Pat. Sec. 535; *Hammerschlag v. Scamoni*, 7 Fed. 584; *Telephone Co. v. Spencer*, 8 Fed. 509; *Machine Co. v. Teague*, 15 Fed. 390; *Manufacturing Co. v. Buffalo*, 20 Fed. 126; *Brush Electric Co. v. Electric Imp. Co.* 52 Fed. 965; *Ex Parte Nagle* (1870) Com. Dec. 137; *Ex Parte Howland*, 12 O. G. 889.

"When the complainant claimed, in claim 10 of his patent 318,859, 'dredge boat having a self-contained pivot, forming a center of horizontal oscillation, with devices for swinging and working said boat upon said pivot, in combination with a suction pipe, exhausting apparatus, and rotary excavator,' he was not claiming a result, which, of course, he could not do. Nor did he thereby limit himself to any particular form of construction of the several devices therein mentioned. What he there claimed, and what he, as the first inventor of any combination that would accomplish the desired result had a right to claim, was the combination of a dredge boat itself containing a pivot forming a center of horizontal oscillation, with devices for swinging and for working the boat on the pivot, a rotary

excavator for the severing of the material in place, a suction pipe for its receipt and transmission to the exhausting apparatus, and the latter for the transportation and discharge of the spoils to the desired place of deposit. The record shows that the complainant was the first to combine those elements at all, and that the functions performed by his machine so constructed were entirely new. Hence he had the right to make the broad and generic claim embodied in claim 10, without any limitation as to the form of construction of the particular elements, and all subsequent machines which employ substantially the same means to accomplish the same result are infringements, notwithstanding the subsequent machine may contain improvements in separate mechanism which go to make up the machine. Authorities, *supra*, and *McCormick v. Talcott*, 20 How. 402; *Railway Co. v. Sayles*, 97 U. S. 554; *Clough v. Barker*, 106 U. S. 166, 1 Sup. Ct. 188; *Consolidated Safety-Valve Co. v. Crosby Steam Gauge & Valve Co.*, 113 U. S. 157, 5 Sup. Ct. 513. Of course, it remained open to any subsequent inventor to accomplish the same result by substantially different means."

In *Bake-rite Mfg. Co. v. Tomlinson et al.* 16 F. (2d) 556, C. C. A. 9, (1926), the following claim, previously held valid by the District Court, was upheld (p. 556) :

"In an apparatus of the character described (a) a receptacle for hot grease; (b) mechanism for turning doughnuts or the like over after they have been in a separate receptacle for a predetermined length of time; (c) a mechanism for thereafter removing them after they have been cooked for a further predetermined length of time.' "

The court said (p. 557) :

"It is also argued that Tomlinson's patent is invalid, because it is an attempt merely to patent a principle, function, or result. Appellants cite authorities holding that a patent covering generally any and every means or mechanism or method producing a given result is void as an attempt to patent a principle. That rule, undoubtedly generally correct, is inapplicable here, for the reason that Tomlinson claims a combination of means which operate together to perform a certain

function. *Morley Machine Co. v. Lancaster*, 129 U. S. 263, 9 S. Ct. 299, 32 L. Ed. 715; *Denning Wire & Fence Co. v. American Steel & Wire Co.* (C. C. A.) 169 F. 793.' ''

A further important case is *Denning Wire & Fence Co. v. American Steel & Wire Co.*, 169 Fed. 793, C. C. A. 8 (1909). The claims were upheld by the Circuit Court whose opinion was adopted by the Circuit Court of Appeals.

The first claim is representative and is as follows (p. 799) :

“ “(1) In a wire-fence machine, the combination of mechanism for intermittently feeding a plurality of longitudinal strand-wires, mechanism for intermittently feeding a plurality of stay-wires simultaneously and transversely of the strand-wires, mechanism for cutting off suitable lengths of the stay-wires to span the space between the strand wires, and mechanism for simultaneously coiling the adjacent ends of the lengths of the stay-wires around the strand-wires.’ ’’

The court said (pp. 799-800) :

“ ‘The others are in substantially the same form. Standing alone, the claims are plainly for a combination of four groups of mechanisms into a “wire-fence machine”; but the machine itself, and its principle and mode of operation are not, and cannot be, accurately described without the aid of drawings or a model, and an attempt to do so would be unavailing. The specifications, however, and the drawings which are a part thereof, particularly describe, and plainly show, a machine the principles and mode of operation of which, and the several elements composing the same, are exactly described and clearly set forth with much detail; and the plain meaning of the language of the several claims in connection with the specifications applicable to each is a distinct claim for a machine that, when built and operated in the manner described and pointed out, will produce a wire-fence fabric, and is not a claim for a “mode of operation,” a “principle,” or a function of a machine or any part thereof, apart from the machine itself.

‘Are the several claims so broad as to include any and every kind of a machine for making a woven wire-

fence fabric, such as is described? This question has been carefully considered, and it must suffice to say that they are not. The specifications clearly describe the several component parts, and their combination to form a new machine; and the claims are only for the combination of the mechanisms, or their substantial equivalents, within the scope of the organization as described, to do the work that this machine is designed to do.' "

In *Remington Cash Register Co. v. National Cash Register Co.*, 6 F. (2d) 585, District of Connecticut (1925), a large number of claims were upheld, notwithstanding contentions that they were for a function. The following claims may be taken as representative (p. 593):

" '58. In a calculating machine, the combination with a subtotal set of registers, a grand total set of registers, and co-operating printing mechanism, of means co-operating therewith whereby a group of items may be accumulated on said subtotal registers, listed, its total printed, and said subtotal registers cleared at the will of the operator, and whereby a plurality of such totals may be accumulated and preserved on said grand total registers for producing a grand total of groups of items which have been accumulated on said subtotal registers.'

'213. In a calculating machine, the combination of a subtotal accumulator and a grand total accumulator, a printing mechanism therefor, depressible keys for controlling said accumulators and said printing mechanism and means correlated with said accumulators, printing mechanism, and keys, whereby each group of a plurality of groups of items may under the control of said keys be separately totalized on said subtotal accumulators, and whereby each item of each of said groups of items may be printed by said printing mechanism under the control of said keys, and whereby each total of each of said groups of items may be printed by said printing mechanism under the control of said subtotal accumulator, and whereby a grand total of all of said totals may be accumulated on said grand total accumulator, under the control exercised by said keys for said totalization of said groups of items.' "

The court says (p. 606) :

"But the defendant asserts that the claims in suit are void because they are for a function, and directs attention to *O'Reilly et al. v. Morse et al.* 15 How. 62, 14 L. Ed. 601, and other cases in support of its claim. While there are 10 claims in suit directed against the class 1700 machine, and 38 claims against the class 2000 machine, the defendant in its brief rests with a discussion of claim 213 in this connection, although it makes the broad assertion that 'the other claims in issue are stricken with the same vice,' without, however, showing how. Its contention is not sound. The claims were evidently drawn largely by the inventor himself, and they probably are not models of perfection in the art of drawing claims, but that does not necessarily make them invalid. They are, at least, clear, and unmistakably notify the public what the patentee claims as his own.

Claim 213, as well as the other claims in suit, are combination claims, in which the structure, of certain elements is identified as 'means' defined by its function. It is well established that such is a proper way to claim combinations of means. In the *Paper Bag Case*, 210 U. S. 405, 28 S. Ct. 748, 52 L. Ed. 1122, the Supreme Court sustained claims of a type similar to those in issue here, as has already been pointed out, and as appears on page 422 of the opinion in that case (28 S. Ct. 752).

The claims sustained by the Supreme Court in *Morley Sewing Machine Co. v. Lancaster, supra*, were of the same type as the claims here in suit; if anything, they disclose less structure than the claims under discussion. One of the claims there sustained reads:

'1. The combination, in a machine for sewing shank buttons to fabrics, of button-feeding mechanism, appliances for passing a thread through the eye of the buttons, and locking the loop to the fabric, and feeding mechanism, substantially as set forth.'

The claims in suit are not for a mere function, like claim 8 in the *O'Reilly v. Morse Case, supra*, but set forth the very combination of means which is the contribution which Gubelmann has made in this art, and which defendant is using in its machine. I therefore conclude and hold that the patented inventions of

Gubelmann are present in the defendant's class 2000 machine.'

In *Brush Electric Co. v. Fort Wayne Electric Light Co.*, 40 Fed. 826, (1889) the Circuit Court for the District of Indiana, upheld the claims of letters patent No. 219,208, granted to Charles F. Brush September 2, 1879. The claims are given *in extenso* below (p. 832):

"(1) In an electric lamp, two or more pairs or sets of carbons, in combination with mechanism constructed to separate said pairs dissimultaneously or successively, substantially as and for the purpose specified. (2) In an electric lamp, two or more pairs or sets of carbons, in combination with mechanism constructed to separate said pairs dissimultaneously or successively, and establish the electric light between the members of but one pair, to-wit, the pair last separated, while the members of the remaining pair or pairs are maintained in a separated relation, substantially as shown. (3) In an electric lamp having more than one pair or set of carbons, the combination, with said carbon sets or pairs, of mechanism constructed to impart to them independent and dissimultaneous separating and feeding movements, whereby the electric light will be established between the members of but one of said pairs or sets at a time, while the members of the remaining pair or pairs are maintained in a separate relation, substantially as shown. (4) In a single electric lamp, two or more pairs or sets of carbons, all placed in circuit, so that when their members are in contact the current may pass freely through all said pairs alike, in combination with mechanism constructed to separate said pairs dissimultaneously or successively, substantially as and for the purpose shown. (5) In an electric lamp wherein more than one set or pair of carbons are employed, the lifter, D, or its equivalent, moved by any suitable means, and constructed to act upon said carbons or carbon holders dissimultaneously or successively, substantially as and for the purpose shown. (6) In an electric lamp wherein more than one pair or set of carbons are employed, a clamp, C, or its equivalent, for each said pair or set, said clamp, C, adapted to grasp and move said carbons or carbon molders dissimultaneously or suc-

cessively, substantially as and for the purpose shown.'"

The court said (p. 833) :

"It is admitted by the defendants' counsel that the patent in suit describes a new and useful mechanism for which Brush was entitled to a patent; but it is urged that the first, second, third, and fourth claims are for functions or results without regard to mechanism, and are therefore void. The claims are not open to this objection. The specification describes mechanism whereby a result may be accomplished, and the claims are not for mere functions; nor, fairly construed, can it be said that they cover other than equivalent means employed to perform the same functions. The first claim, construed in connection with the means described in the specification, is for an electric arc lamp in which two or more pairs of carbons are used; the adjustable carbons of each pair being independently regulated by one and the same mechanism, and in which there is a dissimultaneous or successive separation of the pairs, so effected as to secure the continuous burning of one pair prior to the establishment of the arc between the other pair. Thus construed, the invention claimed is limited to the particular means described in the specification, and their substantial equivalents. The second, third, and fourth claims also refer to the particular mechanisms described in the specification for the accomplishment of results covered by those claims. They are for combinations of specific mechanisms, and their substantial equivalents, and not for results irrespective of means for their accomplishment."

The same view is taken in *Brush Electric Co. et al v. Electric Imp. Co.*, 52 Fed. 965 (1892) the Circuit Court for the Northern District of California quoting the above language from *Brush Electric Co. v. Fort Wayne Co.*, *supra*.

These claims were also upheld by the Circuit Court for the Northern District of Ohio in *Brush Electric Co. v. Western Electric Light & Power Co.*, 43 Fed. 533 (1890); in *Brush Electric Co. v. Electric Imp. Co.*, by the Circuit Court for the Northern District of California, 45 Fed. 241

(1891); in *Brush Electric Co. v. Fort Wayne Electric Co.*, by the Circuit Court for the District of Indiana, 44 Fed. 284 (1890), and in *Brush Electric Co. v. New American Electrical Arc Light Co.*, by the Circuit Court for the Southern District of New York, 46 Fed. 79 (1891).

DEFENDANTS' CROSS APPEAL.

Defendants assigned error from the decree of the trial court on two points (R. 658).

First: That the Court erred in holding United States reissue Letters Patent No. 16,297 in suit good and valid; and

Second: That the Court erred in denying the motion of defendants to dismiss the bill of complaint herein, on the ground that plaintiff unduly delayed filing its disclaimer as to claim 37 as to said reissue letters patent.*

In the following we propose to discuss defendants' positions so far as we can anticipate them in advance of their brief.

CROSS APPELLANTS' POINT I.

The Parker patent comes before this Court with every legal presumption to sustain its validity. It has been held valid by both the Master and the lower court.

No anticipation of it or of its concept is produced.

* We had intended to limit our opening brief to a discussion of plaintiff's assignments of error, which had to do primarily with the conflict of opinion between the Master and the lower court on the question of infringement (R. 652). We had supposed that under the rules of this court, where a cross appeal was filed, the cross appellants would be required to file their brief at the same time as that required for the appellant, but we have just been advised through defendants' counsel that defendants need not file any brief as cross appellants or otherwise until three days before the argument. This would make any reply before the argument impossible, and for that reason only we shall in the following here attempt to anticipate defendants' brief on the questions raised in their cross appeal. This necessarily is done without knowledge of the positions which defendants may take, and for that reason may be either surplusage or inadequate.

Actual service has proven that the Parker disclosure was the solution of the long existing and perplexing problem which others skilled in the art attempted to solve without success.

Defendants have not used and cannot use as a substitute any of the structures of the prior references upon which they rely, notwithstanding that all of them, with the possible exception of one, are open to their use.

The fact that the references introduced "as showing the prior art" show that numerous other inventors, who dealt with the elevator problem, entirely failed to perceive how to solve it, and their efforts pointed away from Parker's solution rather than toward it, demonstrates that what Parker did required far more than the skill of an experienced worker in the art.

No one of the various prior inventors, including defendants' engineers, perceived what now, in the light of the after acquired knowledge from Parker, is claimed by the defendants to be so simple.

Many patents have been sustained and held infringed by structures differing in details much more widely than defendants' installation differs from even the schematic showing of the Parker patent and where there was much less advance and improvement.

DEFENDANTS' ATTACK ON THE SCOPE OF THE PARKER PATENT IS WITHOUT MERIT AND ONLY SERVES TO MAGNIFY THE PARKER INVENTION AND DEMONSTRATE THE PRESSING NEED AND DEMAND FOR A SOLUTION OF THE PROBLEM SO EFFECTIVELY SOLVED BY PARKER.

In support of their attack on the scope of the Parker invention, the defendants in their original answer, filed September 13, 1927, set up thirty-four United States and foreign patents, alleging that *each of them showed and described the subject matter set forth in each of the claims of*

the Parker patent here asserted. They could hardly have been serious in this, for on or about January 23, 1929, about a year and nine months subsequent to the original answer, defendants' professional witness, Doble, in support of defendants' motion to amend its original answer, filed an affidavit under oath, stating that he (R. 467) :

"has been engaged in analysis of said Parker reissued Letters Patent, and said prior patents and publications, for a period of approximately six months. * * * The proposed amendments" (setting up additional patents in an attempt to anticipate and limit it) "are material and *necessary* to the proper defense of the case, and were not known nor could the same be known by the exercise of reasonable diligence prior to filing the original answer herein."

In the amendment accompanying this affidavit and which the lower court permitted the defendants to file, defendants set up eight additional United States and foreign patents, again alleging that each of them showed and disclosed the subject matter of each of the claims of the Parker patent in suit.

"The closest reference," the Ihlder patent of 1902, was not among those set up in either the original or the amended answer. Thus after six months' investigation by defendants' witness, Doble, defendants had pled a total of forty-two United States and foreign patents, alleging that each showed and disclosed the subject matter of each of the claims of the Parker patent here asserted.

Before the trial was concluded, defendants' counsel confessed of record, that none showed, disclosed nor anticipated the Parker invention nor met any of the claims of the Parker patent here asserted. When he offered the fifteen alleged prior patents, which Mr. Doble "culled * * * out of a very large number," he admitted in answer to the Master's question (R. 409) that he did not "consider that any" of the fifteen referred to disclosed "the same struc-

ture as the Parker patent discloses." They were offered, *not* as anticipating the Parker invention as alleged in the answer, but "*as showing the prior art*" for the purpose of limiting its scope. (R. 407, *et seq.*)

Three of these patents, Coyle, Kammerer and Ihlder, "the closest reference," could be offered only for the purpose of showing the state of the art as they had not been set up in the answer nor had any previous notice been given concerning them (R. 409) as provided by the Revised Statute, Sec. 4920.

The following quotation from *Forsyth v. Garlock* (C. C. A. 1), 142 Fed. 461, 463, is apt:

"Our general observation * * * is that the citation of so many patents by a respondent in an infringement suit sometimes tends, as we have several times said, not so much to weaken complainant's position as to strengthen it by showing that the trade had long and persistently been seeking in vain for what complainant finally accomplished."

The prior art relied on serves only to demonstrate the long-existing and pressing need for a solution of the problem, and how prior inventions failed to solve it; and that the Parker claims should be given a liberal interpretation.

These prior references serve to magnify the Parker invention and establish that Parker made a real invention and "took the important but long-delayed and therefore not obvious step." *Hildreth v. Mastoras*, 257 U. S. 27. *Eibel Process Co. v. Minnesota Co.*, 261 U. S. 45.

Because of the correct finding of the Master that the Ihlder (1902) patent "is the closest reference" and as it is the only one discussed by the lower court, we shall not take up the time of this Court to discuss them in detail, but will point out some of the outstanding reasons why they do not even approach the Parker invention or limit the Parker claims and that none of them could accomplish

the advantages or results of the Parker invention. Mr. Doble, defendants' expert, on cross-examination, was compelled to admit this.

CROUAN. No. 344,307 of 1886.
(Vol. 3, P. 233.)

This is an hydraulic-operated elevator. It is started and stopped by pulling a control rope. It has no electrical apparatus or switches whatever. It has a mechanical device which can only be set for one floor at a time by grabbing the rope to cause the stopping of the car at a floor. After it has thus stopped the elevator at a floor, it must be again set for any other floor at which it is desired the car should stop.

This patent does not show or disclose:

- (a) An electrical controlling circuit;
- (b) A switch manually operable for closing said circuit.
- (c) Means for holding said switch in circuit closing position;
- (d) Selective means for actuating the release of said holding means to stop the elevator at one or more predetermined points in the line of its travel;
- (e) A manually operable circuit closer to be operated prior to the arrival of the elevator at a selected stopping point;
- (f) An automatic circuit closer actuated upon the arrival of the elevator at the selected stopping point;
- (g) A plurality of control means, one for each of a plurality of landings, operable from without the car, to cause the stopping of the car at the landings, for which the control means are operated.

In short, as this patent was so completely disposed of on cross-examination of defendants' witness, Doble, (R. 458, *et seq.*) and is so fundamentally and radically different from the Parker invention, as must be apparent to any one at a glance, we pass this 1886 patent without further discussion.

BULLOCK. No. 388,627 OF 1888.
(Vol. 3, P. 247.)

This patent shows what appears to be a freight elevator, in which the controlling element is the ordinary "shipper cord" (page 1, line 24). There is nothing whatever electrical about this structure. There are no electrical switches. There is a mechanical device set from within the car to engage the shipper cord, to stop the car at a landing, but this device can be set in advance for only one stop. After a stop, the stopping device must be again set for the next stop. There is no means whereby the waiting passenger can automatically stop the car at any one of predetermined landings. It discloses none of the elements of the Parker reissue patent. It lacks the same features as pointed out with respect to Crouan. (R. 462, *et seq.*)

NICKERSON. No. 403,439 OF 1889.
(Vol. 3, P. 255.)

This patent shows a very crude electrical apparatus for operating the starting and stopping control means for an elevator only from within the car.

The combined starting and stopping mechanism can be set for only one floor at a time.

The car cannot be stopped by passengers waiting at the landings.

There are no push buttons or other stopping devices operable from without the car at the landings.

There is only one manually operable handle for operating the two starting and stopping switches from within the car, that is to say, the same handle is used for setting both the up and down starting and stopping switches within the car.

The operator must remember each floor called by the passengers and must operate the combined starting and

stopping switch after each stop, in order to cause the car to travel to another floor and stop at that floor.

The starting and the stopping of the car is initiated solely from the car switch, and after the switch has been operated, to start the car on its way to a given floor, no means, excepting the same switch, is provided for stopping the car. (R. 473, *et seq.*)

NICKERSON. No. 403,440 OF 1889.

(Vol. 3, P. 265.)

This patent is intended to accomplish the same operation as the previous Nickerson patent, but employs a different apparatus for that purpose. The distinctions between Nickerson 403,439 and Parker, already pointed out, apply in substance to this patent. Further discussion of this patent is therefore unnecessary.

MCFEELY. No. 404,361 OF 1889.

(Vol. 3, P. 271.)

This patent relates to an hydraulic elevator, controlled by a hand rope which is actuated either directly by hand or indirectly through the intermediary of electrically controlled valves.

A switch is provided within the car for determining the direction of car travel. A second switch comprising a switch lever operable over a plurality of contacts is also provided within the car for controlling both the starting of the car and the floor at which a stop is to be made. These switches close one or the other of two circuits for the electrically controlled valves. Upon arrival at the selected floor, a cam opens a switch in the circuit established by the switches in the car, to effect the stopping of the car.

This patent lacks:

(a) Push buttons or other stopping devices oper-

able from the landings, by which waiting passengers can stop the car.

(b) A plurality of stop controls, either in the car or anywhere else, which can be set in advance for a plurality of floors.

(c) A single start control in combination with a plurality of stop controls.

(d) Control means operable by passengers at landings to stop the car in combination with control means operable from within the car to start the car.

(e) A switch holding means released by closing two gaps in a circuit, one manually in advance of arrival at the stopping point and the other automatically upon arrival at the stopping point.

The points above noted will be sufficient to show that the system of the McFeely patent is entirely unlike that of the Parker patent, and none of the Parker claims in suit can be met or limited by McFeely.

ONGLEY. No. 410,182 OF 1889.
(Vol. 3, P. 283.)

This is one of the two patents which defendants' witness, Doble, said was capable of being started only from within the car and of being stopped from within the car or the landing. Mr. Doble simply was in error on this for as a matter of fact with the Ongley arrangement the car is started from any landing as well as from within the car and the waiting passengers at the floors can interfere with the operation of the car at any time regardless of where it is.

The lack of similarity between the Ongley arrangement and the Parker invention was clearly brought out during the cross-examination of defendants' witness Doble. (R. 464.)

Ongley has two start control buttons in the car and two start control buttons at each landing. He thus lacks the important feature of the Parker invention, namely, only

one start control, and this operable only from within the car.

Ongley has one car button for stopping. This does not correspond with particular floors, as he uses the same button no matter at which floor he may desire to stop. The operator must know where the car is, and push the stop button while the car is in the stopping zone for the particular floor desired and hold the button in until the car has stopped. The operator thus cannot set controls for a plurality of stops in advance.

Each landing has one stop button which may be pushed in while the car is in the stopping zone for the particular floor at which a waiting passenger desires to stop the car, and must be held in until the car comes to a stop. These hall buttons, however, are not selective with respect to particular floors, and any one of them may stop the car at the first floor which the car comes to while the hall button is held in.

Waiting passengers cannot set a series of stop buttons at the landings, and definitely obtain automatic stopping at the selected landings, even by holding the stop buttons. Since the person entering the car at the first stop might thereupon start the car in a direction away from the landing where a second passenger is waiting, the second passenger might be required to wait for an indefinite length of time or he might push a start control button at his landing and reverse the direction of the car. The passenger in the car and each of the passengers waiting at landings might likewise operate start control buttons for either direction, to the complete demoralization of the elevator service. Such a possibility will at once suggest the importance of the Parker principle of having only one start control, and this operable only from within the car, while having stop controls operable from within the car and stop controls operable from without the car.

In brief the Ongley patent in nowise shows electric control means for an elevator whereby the elevator can be automatically stopped at any one of a series of predetermined floors by the operator pressing a button within the car or the waiting passenger pressing a button at any one of the landings and can only be started by the attendant manually operating the control means within the car.

COYLE. No. 471,100 of 1892.

(Vol. 3, P. 301.)

This patent discloses an hydraulic elevator, with electrical control circuits.

Its starting is not dependent upon a single start control operable only from within the car. Each of the hall buttons of Coyle is a start control as well as a stop control, likewise each of the buttons within the car of Coyle is a start control as well as a stop control.

Under no condition can the car of Coyle, after being started from within the car, be stopped by a control operable from without the car.

The Coyle patent lacks:

- (a) A single start control means, operable only from within the car.
- (b) A single start control operating in combination with a plurality of stop controls.
- (c) Start control means operable only from within the car, in combination with stop control means operable by passengers waiting at landings.
- (d) A plurality of stop controls which may be set in advance for stopping at a number of floors called for by passengers without depending upon the operator remembering what floors were called.

Since Coyle definitely intends to have the car subject to the control of one button to the exclusion of others, it will be clear that his disclosure is entirely lacking in the Parker principle of co-operation between stop controls in

the car, stop controls at the landings and a start control in the car.

The Coyle patent in many other respects clearly lacks the Parker invention as shown by the cross-examination of defendants' witness Doble.

BUFFINGTON, ET AL. No. 530,578 OF 1894.
(Vol. 3, P. 311.)

In this patent there are no switches that can be set at the same time to stop the car at different floors when the car arrives at those floors.

The two switches that are on the Buffington, et al., car can be set to stop the car at one landing only, and one or both of these switches must be again set to start the car and cause it to stop at a further floor.

There are no push buttons whatever at the landings in the Buffington, *et al.*, structure.

The patent discloses no single start control in combination with a plurality of stop controls. The patent also lacks control means operable by waiting passengers at landings to stop the car at the respective landings in combination with control means operable from within the car to start the car.

STROHM. No. 570,827 OF 1896.
(Is an hydraulic elevator. Never used.)
(Vol. 3, P. 321.)

In the Strohm patent there is no selected means comprising a manually operable circuit closer to be actuated prior to the arrival of the car at a selected point and an automatic circuit closer actuated upon the arrival of the car at said selected stopping point.

In the Strohm patent there is more than one control means for causing the starting of the car; there being in

Strohm a control means within the car for causing the starting of the car, and other control means, the doors and gates, that are operable from outside the car, to cause the car to start.

Strohm has no plurality of control means operable from within the car to cause the automatic stopping of the car at the respective floors.

The Strohm patent does not embody a control system of the type wherein the power mechanism is caused to stop the car at a landing in response to the operation of a switch either within the car or a switch at the landing, characterized by the fact that means are provided only within the car causing the power mechanism to start the car.

In the Strohm patent there is no plurality of up switches, one for each of a plurality of landings, and there is no plurality of down switches, one for each of a plurality of landings, operable to cause the stopping of the car at the respective landings upon its approaching said landings, and there is no car actuating and stopping mechanism responsive to each of the plurality of stop switches operated only when the car is traveling in one direction, and, consequently, there can be no means for preventing the operation of the car actuating and stopping mechanism to stop the car in response to either the up or the down stop switches when the car is traveling in the other direction from that for which the stop switch has been operated.

KAMMERER. No. 681,555 of 1901.
(Vol. 3, P. 361.)

In this patent there is a hand operated reversing switch for starting the car and an automatically operated rheostat switch that cuts out resistance from the motor armature circuit when the elevator is started so as to speed it up. The hand operated reverse switch, which is also the

starting switch, can only be set to cause the car to travel from where it is to one particular floor where the car will automatically stop; to cause the car to proceed to another floor, the reverse switch has to again be operated to start the car, and this must be repeated for every trip the car takes.

The whole control of the lift cage in the Kammerer patent is effected by the handle *c* of the reversing switch. The Kammerer car can not be stopped by waiting passengers at any floor and the person in the car must set the switch for the floor at which he desires the car to come to rest automatically.

After the master switch in the car has been set for any given floor, the car can not be stopped until that floor is reached, unless the person in the car uses his hand to operate the lever catch *i*. According to the specifications, the lever catch *i* is intended to be operated mechanically and automatically by the arm *a* when the latter engages a hatchway cam.

There are no buttons and no plurality of switches either within the Kammerer car or in the hallways. None of the claims of the Parker patent read upon it.

In Kammerer there is no selective means comprising a manually operable circuit closer to be actuated prior to the arrival of the car at a selected stopping point and no automatic circuit closer actuated upon the arrival of the car at said selected stopping point, for the purpose of stopping the car. In fact, what happens in Kammerer is that when the car arrives at the stopping point, the catch that holds a spring actuated switch is released to permit the switch to open, and another switch is operated by a cam to cut resistance into the armature circuit so that instead of closing two gaps in an electrical circuit, Kammerer cuts resistance into the circuit and then opens the circuit.

NISTLE. No. 718,375 OF 1903.
(Vol. 3, P. 383.)

The structure of this patent is entirely mechanically operated. There is nothing whatever electrical about it, either shown, described or hinted at. The Nistle patent shows and describes an elevator car, all movements of which are controlled by a cable extending from the bottom to the top of the shaft, this cable being operable to actuate the control valve of the elevator.

“Strikers” or “tappets” are secured to the rope adapted to be engaged by an adjustable arm upon the car for the purpose of operating the control rope to stop the car. This Nistle device would be entirely unsatisfactory for stopping a high speed elevator.

As there is nothing whatever electrical about this patent, none of the claims of the Parker patent can be read upon it. The devices of the Nistle patent are in no sense switches but are merely “strikers” or “tappets” which may be set and caused to automatically engage the control rope at given points for the purpose of stopping the car. For starting the car, the control rope is operated by hand.

Nistle has no push buttons or other control means operable by waiting passengers at the landings, to automatically stop the car.

WORTHEN. No. 1,219,061 OF 1917.
(Vol. 3, P. 393.)

In the Worthen patent a different lever has to be actuated to start the car from each floor and cause it to go to another floor and stop there. The principal of construction and operation of Worthen is entirely different from the principle of construction and operation of the Parker patent, and none of the claims in suit of the Parker patent can be read upon the Worthen structure.

After each stop, the car must be started for the particular floor to which it is desired to go. In the Worthen patent there are no push buttons or switches at the floor landings for stopping the car, and no means shown for waiting passengers to stop the car.

The Worthen patent was before the Patent Office officials during the prosecution of the Parker application for his reissue patent in suit and was completely disposed of there.

SMALLEY, ET AL. No. 634,220 OF 1899.

(Vol. 3, P. 341.)

This patent relates solely to a system for flashing a light by pressing a button at the landing. The elevator in every instance is started and stopped solely and only by the operator in the car through the manual operation of the switch in the car. It contains none of the features of the Parker patent whereby the car is automatically stopped either by pressing a button in the car or at any one of the various landings.

If any doubt ever existed as to whether or not the Parker combination amounted to patentable invention, or is entitled to a liberal interpretation of its claims, these doubts have been removed by defendants' introduction of the extended testimony of their professional witness and the large number of references offered, most of which have no resemblance whatever to the Parker "Control" combination, in its futile attempt to build up a defense in weight and volume rather than quality.

Defendants asserted both before the Master and lower court that the claims of the Parker patent should be so limited as to require the language of the claims which clearly read on defendants' control to be so interpreted as to not include within them defendants' control in the light of the references introduced on behalf of defendants. But defendants do not adopt any of the prior art starting and

stopping controls, most of which they are free to use. On the contrary they departed from all of them and adopted entirely and precisely the broadly new combined starting and stopping "Control" covered by the Parker claims.

CROSS APPELLANTS' POINT II.

DEFENDANTS' MOTION TO DISMISS, BASED UPON THE ASSERTION THAT THE PARKER PATENT IS INVALID BECAUSE PLAINTIFF FILED A DISCLAIMER OF CLAIM 37 AT THE PATENT OFFICE, IS WITHOUT MERIT. IT WAS PROPERLY DENIED BY THE LOWER COURT.

Plaintiff originally asserted claim 37 of the Parker patent in addition to those mentioned above. The Master's report found that this claim was not sufficiently definite to comply with Section 4888 of the Revised Statutes and (R. 570)

"that the other claims amply protect the invention."

Plaintiff thereafter filed a *proper*, although unnecessary, disclaimer of claim 37 at the United States Patent Office (R. 629).

The lower court in denying this motion states the facts and reaches a legal conclusion in accordance with the well established practice under the disclaimer statute as follows (R. 632) :

"On May 1, 1932, the plaintiff filed disclaimer in the United States Patent Office as to claim 37 which the master has determined was invalid. Pending a decision of the cause, defendants moved the court to dismiss the case on the ground that the plaintiff had unduly delayed the filing of its disclaimer as to claim 37, citing *Ensten et al v. Simon Ascher & Company*, 282 U. S. 445. The argument on the motion to dismiss presented the contention that the plaintiff having failed to except to the finding of invalidity made by the master as to claim 37, and having allowed the time intervening from February 25, 1930, the date of the filing of the master's report, and May 1, 1931, to elapse without disclaiming, the case came within the effect of

the decision above cited. That motion was submitted, and is now to be first disposed of. It would seem that where no final decree is made adjudging any claim of a patent to be invalid, the patentee is not required to disclaim. It is true that no exception was taken to the report of the master finding claim 37 invalid, but the entire report was, at the time of the making of the motion, still before the court subject to being passed upon, changed or modified. There was no decree interlocutory asked for to confirm the report as to the finding of invalidity for lack of exception taken, hence in my view the matter remained at large and the commencement of the reasonable time within which the plaintiff might disclaim would be the entry of such decree. I am, therefore, of the opinion that the motion to dismiss should be denied, and it is so ordered."

The facts and law fully support the above conclusion of the court.

The disclaimer states (R. 631):

"The sole reason for this disclaimer is that a Special Master, in the case of *Otis Elevator Company v. Pacific Finance Corporation and Llewellyn Iron Works*, now pending in and undecided by the District Court of the United States, for the Southern District of California, Central Division, has advised, for the reasons likewise applicable to claims 34, 35 and 36, in a report filed by him, that said claim 37 is invalid as not complying with Section 4888 of the Revised Statutes and as he 'considered that the other claims amply protect the invention.' "

There is nothing in any of the disclaimer statutes which requires a disclaimer to be filed unless a patentee has "*claimed to be the original or first inventor or discoverer of any material or substantial part of the thing patented of which he was not the original and first inventor or discoverer.*"*

Neither the Master's report upon which defendants' motion is based, nor the allegations contained therein, pretend that the disclaimed claim 37 claimed more than that of

* R. S. 4917, Sec. 71, Title 35, U. S. Code.

which Parker was the original or first inventor or discoverer, but on the contrary, show that this claim was held invalid only because it was indefinite as not in compliance with Revised Statutes, Section 4888.*

Defendants' motion taken with the Master's report on which it is based, shows that it was *not necessary* for the plaintiff to file a disclaimer of claim 37 because the Master had recommended that claim 37 be decreed to be invalid as not complying with Section 4888 of the Revised Statutes because of indefiniteness.

The recommendation by a Master that a claim be held to be invalid because of indefiniteness and not in compliance with Section 4888 of the Revised Statutes does not sustain any contention that the patentee "claimed more than that of which he was the original and first inventor or discoverer." It means nothing more nor less than that he has not made the claim to his invention sufficiently specific or definite.

Under such circumstances, while a patentee may disclaim such a claim after a report by the Master or at any other time to save further controversy, especially when the other claims adequately protect the invention, he may do so without being charged with negligence or delay.

Even in a case where a Master recommends that a claim be decreed to be invalid *in view of the prior art*, it is unnecessary for the patentee to make any disclaimer of that

* Sec. 4888. Before any inventor or discoverer shall receive a patent for his invention or discovery, he shall make application therefor, in writing, to the Commissioner of Patents and shall file in the Patent Office a written description of the same, and of the manner and process of making, constructing, compounding, and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art or science to which it appertains, or with which it is most nearly connected, to make, construct, compound, and use the same; and in case of a machine, he shall explain the principle thereof, and the best mode in which he has contemplated applying that principle so as to distinguish it from other inventions; and he shall particularly point out and distinctly claim the part, improvement, or combination which he claims as his invention or discovery. The specification and claim shall be signed by the inventor."

claim until after a final decree has been entered actually adjudging such claim invalid, for even where it becomes necessary to file a disclaimer under the statutes within a reasonable time, the patentee cannot under the authorities be charged with delay until after the entry of a decree or judgment from which no appeal is taken or from which no further appeal is permitted. (*Bassick Mfg. Co. v. Adams Corp.* (C. C. A. 2), 52 F. (2d) 36, 37, and Judge James in the present case (R. 633)).

A necessary disclaimer (*i. e.*, where a court of competent jurisdiction has entered a decree or judgment holding that the patentee has claimed more than that which he was the first to invent, which has become final and from which no further appeal can be taken), must not be confounded with a proper disclaimer (*i. e.*, one which may or may not be filed as the patentee elects).

Where a claim has been held invalid for lack of utility or indefiniteness as not complying with Section 4888, R. S., a disclaimer is “proper” but not “necessary.”

The Master in his report concluded that claim 37 of the patent in suit was invalid and recommended that the lower court so decree—

(a) *Not because* Parker claimed “more than that of which he was the original or first inventor or discoverer”;

(b) *Not because* he claimed “materially more than that of which he was the first to invent”;

(c) *Not because* he claimed to be the original or first inventor or discoverer of a substantial part of a thing of which he was not the original or first inventor or discoverer, for the Master definitely found, as shown on the face of his report, “*that the other claims amply protect the invention*”;

but because he concluded, *as a matter of law*, that claim 37 did not comply with Section 4888, R. S., as to form for it did not include “such definition of structure that the elements of structure claimed can be identified.”

The report of the Master shows that a disclaimer was not necessary as he concluded, *as a matter of law*, that Parker did not claim anything more than he was entitled to, but that claim 37 was indefinite, although it related to a subject-matter *he was entitled to protect and did invent*, and that the other claims amply protected the invention. The disclaimer filed May 1, 1931, was not "*necessary*" though "*proper*."

Parker's claim 37 does not claim "more than that of which he was the original or first inventor or discoverer." The Master very definitely expressed the view not only that "the other claims amply protect the invention," but that—

"Nothing in the prior art shows a combination of control means by which an elevator can be started by an operator and thereafter be stopped automatically at several landings in response to control means in the car and at successive landings in response to control means actuated at any time before the car reaches the selected landing."

It was to such a combination that the claims asserted, including the sub-combination claim 37, were directed.

The Supreme Court in *Cartridge Co. v. Cartridge Co.*, 112 U. S. 624, in considering the disclaimer statutes and laying down the rule as to when disclaimers *are necessary*, speaking through Mr. Justice Blatchford, said at p. 642:

"It is a patentee who '*has claimed more than that of which he was the original or first inventor or discoverer*,' and only '*such patentee*,' or his assigns, who can make a disclaimer; and the disclaimer can be a disclaimer only '*of such parts of the thing patented as he shall not choose to claim or hold by virtue of the patent or assignment*.' A disclaimer can be made only when something has been claimed of which the patentee was not the original or first inventor, and when it is intended to limit a claim in respect to the thing so not originally or first invented. It is true, that, in so disclaiming or limiting a claim, descriptive matter on which the disclaimed claim is based, may, as incidental, be erased, in aid of, or as ancillary to, the disclaimer.

But the statute expressly limits a disclaimer to a rejection of something before claimed as new or as invented, when it was not new or invented, and which the patentee or his assignee no longer chooses to claim or hold. It is true that this same end may be reached by a reissue, when the patentee has claimed as his own invention more than he had a right to claim as new, but, if a claim is not to be rejected or limited, but there is merely ‘a defective or insufficient specification,’ that is, description, as distinguished from a claim, the only mode of correcting it was and is by a reissue.”

The Supreme Court has since repeatedly cited this case with approval.

In *Carson v. American Smelting Co.*, 4 F. (2d) 463, this Court recognized and followed the ruling laid down by the Supreme Court in the *Cartridge Co. v. Cartridge Co.*, case. In dealing with the disclaimer involved, it said of the disclaimer statute (p. 469) :

“It is intended for the protection of the patentee as well as the public, and ought not, therefore, to receive a construction that would restrict its operation within narrower limits than its words fairly import.” In *Cartridge Co. v. Cartridge Co.*, 112 U. S. 624, 642, 5 S. Ct. 475, 485 (28 L. Ed. 828), it was said: ‘A disclaimer can be made only when something has been claimed of which the patentee was not the original or first inventor, and when it is intended to limit a claim in respect to the thing so not originally or first invented.’ Said the court in *Sessions v. Romadka*, 145 U. S. 29, 40, 12 S. Ct. 799, 801 (36 L. Ed. 609): ‘The power to disclaim is a beneficial one, and ought not to be denied, except where it is resorted to for a fraudulent and deceptive purpose.’ ”

Walker on Patents, Fifth Edition, p. 265, Section 195, says:

“Mistakes of fact, relative to how much of a described process, machine or manufacture was first invented by its patentee, frequently follow from lack of full information touching what was previously invented by others. Litigation may alone disclose the fact that the patentee’s claims are too numerous or too broad to

be consistent with novelty. Whenever this occurs, it is clear that the patentee ought no longer to appear to hold an exclusive right to anything which he was not the first to invent. To this end, the statute provides that he must disclaim that part, within a reasonable time, or, in default thereof, must suffer the statutory consequences. On the other hand, it is equally clear, that if the patentee is willing to eliminate from his claims, everything which later information shows *had been invented before him*, he ought to be allowed to retain his exclusive right to the residue. To this end, the *statute provides that if within a reasonable time, he disclaims what was another's, he shall be enabled to enforce his patent as far as it covers what was his own invention.*'"

In a very recent case, *Sachs v. Hartford Electric Supply Co.*, 47 F. (2d) 743 (C. C. A. 2), Circuit Judge Learned Hand, in dealing with a disclaimer filed to limit the claims, said at p. 747:

"However, we do not see that these limitations were in any sense *necessary* to escape the prior art. *A disclaimer is to abandon some part of the invention of which the patentee is not 'the first and original inventor.'* If he has claimed originally too much, so that the claims are invalid under the prior art, the part disclaimed must be clearly separate in the body of the specifications; if he wishes to recast the whole, he must go to a reissue. But there is no objection to his limiting a valid patent as his fears may dictate; * * *,"

The disclaimer statutes and authorities only *require a disclaimer* when the "patentee has claimed more than that of which he was the original or first inventor or discoverer."** Such a disclaimer is called a "*necessary*" disclaimer because it is imperative that it be filed without unreasonable delay after final judgment or decree of a competent court, from which no further appeal can be taken, holding it invalid in order to save the remaining claims. A disclaimer which does not fall within that requirement is not a "*necessary*" one and may or may not be filed at the

* R. S. 4917, Sec. 65, Title 35, U. S. Code.

patentee's election, but it is a "proper" disclaimer. To illustrate: When a claim has been held invalid, even in a final decree, solely for lack of utility or solely because it is indefinite, and does not comply with Section 4888, R. S., no disclaimer is necessary or required, but in such a case a disclaimer may properly be filed if and whenever the patentee so elects. The remaining claims are affected only where a disclaimer was "*necessary*."

Robinson on Patents, in dealing with "*proper*" though not "*necessary*" disclaimers, says, Vol. 2, page 293, Section 652:

"A disclaimer filed without sufficient cause is a nullity under this as well as the former section of the act. If there is no real excess of Claim, according to the construction given to its language by the court, the filing of a disclaimer by the plaintiff, pending suit, does not admit his inability to recover costs. A disclaimer leaving the patent to claim the entire invention, as the courts must have construed it had the disclaimer not been filed, is equally inoperative both as an amendment and upon the costs. The same is true of a disclaimer of a part or act not claimed in the patent, and of such features as the court finds merely formal and not essential to the idea of means embodied in the invention as originally claimed."

Here the Master construed the claims he recommended be sustained as covering the invention attempted to be covered by the subcombination of claim 37, for he definitely stated as one of his reasons for advising, as a proposition of law that claim 37 was invalid:

"That the other claims amply protect the invention."

Therefore, under the statement of Robinson in his work on Patents a disclaimer was wholly unnecessary here and need not have been filed. It was filed only because the owner of the patent elected to file it to save further controversy and expense over it, and not because it was obliged to do so under the statutes or decisions.

Walker on Patents, Sixth Edition, quoted with approval by the Supreme Court in the Ensten case, *infra*, on which the defendants here mainly rely, in dealing with unnecessary disclaimers, states, page 334, Section 248:

"There appears to be no warrant in the statute, for disclaiming any claim which is void for want of utility, and for no other cause. An inventor of a new thing may generally ascertain its character in point of utility before applying for a patent. If he can do so he ought to do so, and thus shield the public from a waste of time involved in examining and judging useless contrivances. Where a patent has but one claim, and where the matter covered by that claim is useless, no disclaimer could make that patent valid. *Where a part only of the claims of a patent are void for want of utility*, and for no other cause, the void claims are not injurious to the valid ones, and therefore no disclaimer is needed in any such case."

And no disclaimer is necessary where some, but not all of the claims of a patent are void, by reason of constructive abandonment, resulting from public use or sale of the subjects of those particular claims, more than two years prior to the application for the patent."

Again Walker says (p. 341):

"The case where a disclaimer is necessary to save the patent *must, however, be distinguished from the case where a disclaimer would be merely proper, as, for instance, where a claim is invalid for incompleteness of description*, as in the latter case the foregoing rule as to costs does not apply."

Again Walker says (p. 337, Section 251):

"There is one difference between the two disclaimer sections of the Revised Statutes, which it is proper to mention and explain in this place. Section 4917 contemplates disclaimers as being proper whenever a patentee has claimed more than that of which he was the first inventor; while Section 4922 attends only to cases wherein the excess is a material or substantial part of the thing patented. This qualification should be inserted in the two sections as construed together because Section 4922 is the only one that prescribes any evil result from a failure to disclaim. *Neither section visits*

any infliction on the patentee, for omitting to disclaim anything which is an immaterial part of the thing patented. If, therefore, a patentee omits to disclaim such a part when he discovers it to have been known before his invention thereof, or learns that it is not an invention at all, he thereby loses no right, and incurs no inconvenience. *To file a disclaimer, in such a case, is an act which is at once harmless and unnecessary.”*

If the Master was right in concluding that claim 37 of the Parker patent is indefinite and incomplete and failed to comply with Section 4888, then it never was a claim which covered an invention. It merely amounted to a paragraph of immaterial reading matter, which need not, but may be disclaimed. According to Walker:

“to file a disclaimer, in such a case, is an act which is at once harmless and unnecessary.”

In *National Electric Sign Co. v. DeForest Wireless Telegraph Co. et al.*, 140 Fed. 449 (C. C. S. D. N. Y.), Judge Wheeler in distinguishing between “*necessary*” and “*proper*” disclaimers and dealing with a situation where a claim is invalid for “*indescription*,” said at page 455:

“The statutes restricting costs upon filing a disclaimer after suit seem only to apply where a disclaimer is necessary to upholding the patent, and is filed for the purpose of saving it. That is not the situation here. No part of the invention set forth to which the claims held valid apply needs to be disclaimed to make or leave them valid. *The doubt about those in question not held to be valid arises from their description of what is claimed, and not from failure of right of the patentee to what they might have covered.* The various forms of claims or the same thing need not all be valid; and those that for *indescription* are not valid need not be disclaimed in order to recover upon those that describe the actual invention. That costs were not mentioned was not intended to indicate that they should not follow the recovery.

“The decree is made to conform to these views.”

Judge Wheeler thus clearly held that a claim which was invalid for incompleteness or *indescription* (both meaning

the same thing), need not be disclaimed, that is, such a situation does not require or make "necessary" a disclaimer. This is precisely the condition in the present case.

In *Marconi Wireless Telegraph Co. v. DeForest Radio Telephone & Telegraph Co.*, 243 Fed. 560 (C. C. A. 2, Cox, Rogers, and Hough, Circuit Judges) Circuit Judge Hough in delivering the opinion of the Court, in disposing of the contention there made that the patent in suit was made void by an unlawful disclaimer, said (p. 565) :

"The mistake (if there was one) was in claiming something not needed, *and the disclaimer abandoned what was not wanted, without broadening or enlarging any claim*; it also left the claims fully supported by the original specification. No injury to defendant, or any one else, is shown."

This Court in *Carson v. American Smelting & Refining Co.*, 4 F. (2d) 463 (C. C. A. 9), *supra*, at p. 470, speaking through Circuit Judge Gilbert, adopted and quoted the above language of Judge Hough with approval.

In *Whitney v. Boston & A. R. Co. et al.*, 50 Fed. 72 (C. C. Mass.), Judge Nelson said:

"Defendant's motion to withhold a decree in favor of the plaintiff until the plaintiff shall have disclaimed the 1st, 4th, 5th, 6th and 7th claims of his patent is denied, upon the ground that, assuming, as the defendants contend, that the evidence in the case proves that said claims cover what had been in public use and on sale for more than two years prior to the plaintiff's application for his patent, yet, since it appears that the plaintiff was the original and first inventor of the parts of his invention secured by said claims, he is therefore not required by Rev. St. sec. 4922, in order to entitle himself to a decree for an infringement of the second and third claims of his patent, to make disclaimer of the other claims."

The courts have repeatedly refused to insist on disclaimers even where the evidence shows that claims *not in suit* were invalid in view of the prior art.

It is clear under the statutes and authorities that a disclaimer was not "*necessary*" in the present case but that the one filed was "*proper*" and one that may or may not have been filed at plaintiff's election without any injurious results to the sustained claims.

In this connection District Judge Coxe's decision in *Hewes & Potter Inc. v. Meyerson* (D. C. N. Y.), 51 F. (2d) 405, presents an interesting anomaly. Defendants there insisted that the suit

"should be dismissed because of the failure of the patentee to disclaim"

after an unfavorable decision in other litigation in another circuit, declaring the entire patent invalid, citing *Ensten v. Simon, Ascher & Co.*, 282 U. S. 445, upon which defendants here rely in support of their contention. In disposing of this contention the court said (p. 407):

"It is not, however, satisfactorily explained how a patentee can disclaim where his entire patent has been declared invalid by a Circuit Court of Appeals in one circuit and sustained in another circuit, and the entire purpose and history of the disclaimer statute indicates that it was never intended that it should apply to such a situation."

The *Ensten* case, 282 U. S. 445, upon which defendants rely, affords no basis for their motion.

In the *Ensten* case, the patent contained six claims which were asserted in the Northern District of Ohio (*Ensten v. Rich-Sampliner Co. et al.*). An interlocutory decree was filed May 24, 1922, that adjudged claims 1, 3, 4 and 5 valid and infringed and held claim 2 invalid in view of the prior art. In other words, claim 2 was held to be too broad and to include more than that of which "the patentee was the original or first inventor or discoverer." Within thirty days the defendants appealed from so much of the decree as upheld the four claims. Complainant might have, but did not appeal, from that portion of the decree holding

claim 2 invalid, in view of the prior art, and hence the validity of claim 2 was not before the Court of Appeals when it approved the decree so far as challenged by the defendants as to claims 1, 3, 4 and 5. The plaintiff, not having appealed from the holding that claim 2 was invalid, as claiming more than that of which he, the patentee, was the original or first inventor or discoverer, and the Court of Appeals having affirmed that decree, the plaintiff was thereby prevented from ever again asserting in that suit the validity of claim 2.

Notwithstanding no appeal was taken from the interlocutory decree of May 24, 1922, the plaintiff waited until April 30, 1924, to file a disclaimer as to claim 2 in the Patent Office.

Judge Westenhaver in the case of *Ensten v. Rich-Sampiner Co.* (D. C. Ohio), 13 F. (2d) 132, and the Court of Appeals of the Sixth Circuit in the case of *Ensten v. Simon, Ascher & Co.*, 38 F. (2d) 71, held that the patentee had unreasonably neglected and delayed disclaiming claim 2 after the District Court in Ohio had decree it invalid, from which decree no appeal was taken.

The Supreme Court in the Ensten case quotes from the opinion of *O'Reilly v. Morse* (1853) 15 How. 62, as follows (p. 454):

‘It appears that no disclaimer has yet been entered at the Patent Office. But the delay in entering it is not unreasonable. For the objectionable claim was sanctioned by the head of the Office; it has been held to be valid by a Circuit Court and differences of opinion in relation to it are found to exist among the justices of this court. *Under such circumstances the patentee had a right to insist upon it, and not disclaim it until the highest court to which it could be carried had pronounced its judgment.*’

Again the Court says (p. 455):

‘In certain definitely defined circumstances, and to the end that the mistaken but honest inventor may ob-

tain relief from the old rule, the disclaimer provisions permit him to deprive the public temporarily of complete freedom from the assertion of a monopoly apparently valid, but not so in fact. *When a competent court has declared his pretensions without sufficient foundation, we think good faith and the spirit of the enactment demand that he act with such promptness as the circumstances permit either to vindicate his position or to relieve the public from further evil effects of his false assertion.*"

And again the Court says (p. 455) :

"When the District Court in Ohio declared claim 2 invalid, the owner of the patent might have appealed to the Circuit Court of Appeals within thirty days and thus secured an early determination of his rights. He did not choose this course but continued to hold himself out as possessor of the sole right to 'make, use and vend' under the rejected claims, for nearly two years. Then he abandoned it. He made no effort promptly to vindicate what he had asserted nor did he surrender it. Thus he failed to earn the offered exemption and now he may not complain."

And again on page 457, the Court says:

"Certainly, in this case where an appeal was taken by the defendants, it would have entailed no unreasonable hardship upon the patent owner promptly to have submitted the legality of the rejected claim for determination by the appellate court. The route to that end was obvious, easy, inexpensive. He deliberately failed to defend his assertion of right by appealing. He has been guilty of unreasonable delay and has not brought himself within the beneficent provisions of the statute."

The opinions in the Ensten cases show conclusively that claim 2 of the patent there involved was decreed invalid *in view of the prior art*; therefore, the patentee had "claimed more than that of which he was the original or first inventor or discoverer." The decree having been entered and an appeal having been taken to the Court of Appeals by the defendant as to the validity of claims 1, 3, 4, and 5,

within the time allowed for appeal from an interlocutory decree, and the plaintiff having taken no appeal from the interlocutory decree holding claim 2 invalid in view of the prior art, the decree of the trial court became final as to claim 2 and the patentee was thus under the immediate obligation of filing disclaimer if he desired to maintain the rest of his patent under the disclaimer statutes. Such a disclaimer was "necessary" under the statutes and decisions. The patentee filed no such disclaimer of claim 2 for nearly two years and under these circumstances the lower court, Court of Appeals, and the Supreme Court held the patent invalid because of failure to promptly file the disclaimer.

In the instant case, no such situation exists as in the Ensten case referred to for the following reasons:

In the instant case—

1. Claim 37 of the Parker patent does not claim more than that of which Parker was the original or first inventor or discoverer nor "materially more than that which he was the first to invent."
2. The Master recommended that claim 37 drawn to a sub-combination be decreed invalid only because it was indefinite and hence did not comply with Section 4888, R. S., and because he "considered that the other claims amply protect the invention." There is no possible interpretation of the Master's report that Parker by claim 37 claimed more than that of which he was the "original or first inventor or discoverer."
3. Here no decree has ever been entered holding claim 37 of the Parker patent invalid. Quite the contrary Judge James held *that where no final decree had been made adjudging any claim of the patent to be invalid, the patentee was not required to disclaim* (R. 633).
4. Had not plaintiff filed a disclaimer of claim 37

prior to the entry of the decree it would have been at liberty to have raised and argued, without taking an exception, the legal conclusion as to whether claim 37 was valid under Section 4888 of the Revised Statutes and could have appealed from the portion of any decree holding claim 37 invalid. Therefore, as stated by the Supreme Court, 282 U. S. 453:

“The allowance of his claim by the Patent Office raises such a presumption in its favor that he may rely on its validity until a court of competent jurisdiction decides it is broader than his real invention.”
and page 454:

“The patentee had a right to insist upon it and not disclaim it until the highest court to which it could be carried had pronounced its judgment.”

5. The mere failure to file exceptions to a Master’s report, on a conclusion of law, does not prevent the party not taking exceptions, from raising and arguing a question of law such as that involving the question of whether a claim complies with Section 4888, R. S., or not, nor does it prevent his having the Court of Appeals thereafter review the decree of the District Court thereon.

6. Until a decree has been entered finally holding a claim invalid and this decree has either been affirmed by the highest court to which an appeal may be taken or in which review may be had or where no appeal has been taken within the time permitted by statute, a patentee who has had a claim allowed to him is under no obligation to file a disclaimer to that claim under the Federal Statutes, even where he claims more than that of which he was “the original or first inventor or discoverer.”

7. Parker, having claimed no more than that of which he was the original or first inventor or discoverer, was under no obligation to file any disclaimer of

claim 37, even though the Master recommended that a decree be entered holding this claim invalid because of indefiniteness and that the other claims amply protect the invention. It was unnecessary for him to do so.

8. Parker, having filed a proper disclaimer of claim 37, even though he was the inventor of the subject matter thereof, was not required by any statute to do so in order to maintain his patent.

9. The owner of the Parker patent cannot be charged with any delay in the entering of the final decree in that case or in the filing of a disclaimer of anything it saw fit to disclaim prior to the entry of a decree or failure to appeal therefrom.

10. There is no possible theory on which delay could be predicated, even though the situation in the present case required a "necessary" disclaimer, which it does not.

11. The Federal Statutes do not require any disclaimer whatsoever unless "*the patentee has claimed more than that of which he was the original or first inventor or discoverer.*" This Parker has not done nor did the Master so hold. Under such circumstances, Parker was entitled to file his "proper" though not "necessary" disclaimer when he did or in fact at any time prior to the expiration of his patent, if he so desired. Even in the Ensten case, upon which the defendants largely rely, the Supreme Court clearly recognized that the time for filing even a necessary disclaimer does not start to run until a court of competent jurisdiction has entered a decree or judgment from which no appeal can be taken holding that "the patentee claims materially more than that of which he was the original or first inventor" and also that where an appeal may be taken from or other review

had of a decree so holding, and the time has not run for taking such appeal or seeking other review, the patentee is not required to disclaim a claim held invalid "until the highest court to which it could be carried had pronounced its judgment."

CONCLUSION.

The Parker invention was projected into an art which had for years been given careful attention and study by the best elevator engineers in the country and elsewhere.

The use of it in connection with the Otis "Signal Control" elevators solved a long existing and perplexing problem which remained unsolved by their experts or by anyone else.

It revolutionized vertical transportation (R. 121) and has been responsible for a new "Signal Control" type of electric elevators.

It has gone into extensive use and is generally demanded by the better trade.

When the Parker "Control" is applied to any of the previous highly complicated elevator mechanisms, it so harnesses and controls them that

"the starting of the car, either up or down in the shaft, is entirely and singly within the manual control of the car operator."

and

"the stopping of the car at predetermined points in its ascent or descent may be automatically attained."

The use of the Parker "Control" in connection with any of the previous highly complicated, attendant-operated elevators entirely eliminated the serious objections theretofore common in connection with the use of such elevators of the operator running by or failing to stop at a floor desired by a passenger riding in the car, or of failing to

stop for persons waiting at any of the landings, while the elevator is traveling in either direction.

The facts shown by the testimony that the invention was made by a non-member of the elevator industry; that elevator engineers had realized the pressing need for accomplishing the Parker result without providing any means for solving it; that it could be and was readily adapted for use, by the Otis Elevator Company, in connection with the highly developed Otis elevators, who purchased the patent upon a realization of what the invention would accomplish in use; that defendants, inspired by the success of plaintiff's "Signal Control" elevators, copied them, and in so doing, utilized the Parker "Control" instead of the art upon which they relied to limit or defeat the Parker patent, is a demonstration that Parker made a radically new invention of highly meritorious character.

The Master, who saw and heard all of the witnesses, and examined both plaintiff's and defendants' installations which utilize the Parker invention, on at least two occasions, clearly understood them. He was clearly right in holding claims 3, 22, 29, 40 and 65 valid and infringed. He gave each of these claims the interpretation to which each is clearly entitled. Claim 41 is also infringed.

The lower court was right in dismissing defendants' motion to dismiss based on plaintiff's disclaimer of claim 37.

The lower court was right in holding the claims valid. His failure to appreciate the character of the Parker invention, what the Parker patent disclosed, and his failure to realize that the prior art showed nothing which could accomplish the result of the Parker "Control," led to his erroneously and unwarrantably restricting the language of the claims, each of which clearly includes within its proper scope the defendants' structure.

The finding of the Master that the Parker patent is valid

over the numerous original defenses including inoperativeness, invalidity in view of the prior art, invalidity of the reissue, should be approved. So much of the decree as finds non-infringement should be reversed and the lower court directed to change its decree accordingly, and to award the plaintiff an injunction, an accounting and costs as prayed.

Respectfully submitted,

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